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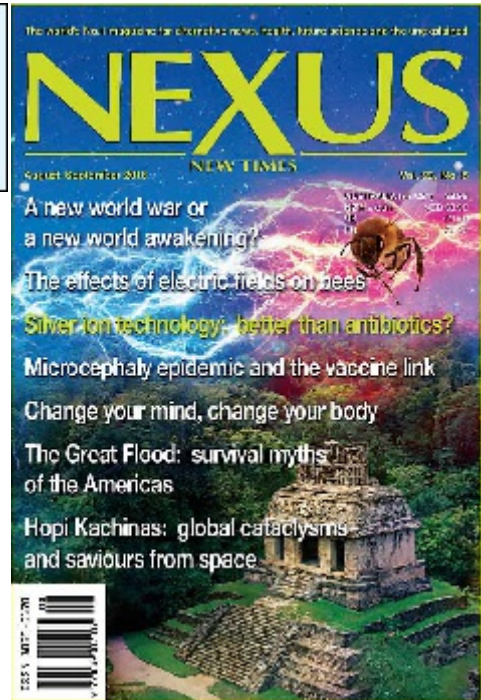
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Editorial

Most NEXUS readers have a keen eye on the future, and whether you have fear-based worries about finances and survival, or hope-based anticipation of a golden age of peace, most of you use non-mainstream news to get a bigger picture of what may be going on—and there is plenty on offer regarding possible future outcomes, ranging from bleak to utopian.

Many readers, myself included, have a great deal of respect for the warnings of Dr Wernher von Braun, as relayed by Dr Carol Rosin many years later. The final outcome is a global, controlled society, and the main culprits spending the decades and trillions in funds to implement it are traceable to the military-industrial-intelligence complex—run by the bloodline families of Europe. The plan, spanning many decades, is simple:

Step 1: create fear of a communist threat, and use that fear to justify putting weapons into orbit. Step 2: create fear of rogue or terrorist nations and put more weapons into orbit. Step 3: create fear of asteroids, and use that to put more weapons into space. Step 4: create fear of hostile extraterrestrials, and use that to put more weapons into space.

Von Braun insisted that each threat would be manufactured, and that decades would be spent in the planning and execution. It is clear from Rosin's testimony that von Braun believed ETs to be real and to pose no hostile threat.

We saw the "Star Wars" weapons system launched under US President Reagan, and "Son of Star Wars" some years later. North Korea (which some maintain is a joint UK-USA creation and puppet experiment country) is dutifully making noise on a regular basis about nuking the West.

We've had a few "asteroid threat" Hollywood movies to plant that seed, and semi-regular announcements about a joint international effort to protect Earth from rogue asteroids. It's just a matter of time.

Regarding the "hostile ETs threat", again we've had plenty of Hollywood movies. Unsurprisingly, the military-intelligence community has been active for decades to ensure there are those who believe that Earth is under attack or threat from hostile aliens. One of its main areas of attention is the UFO subculture: forums, websites and groups. It's no wonder that so many UFO believers help to spread the whole fear meme regarding ETs.

Things are changing fast, and I sense they're about to change even faster. The questions I'm asked most at present (given that "Brexit" was a surprise outcome) are regarding the US presidential election. Will Donald Trump win? Is he a rogue player or is he part of "the plan"? Will "they" let him stay in power and change anything? What about Hillary Clinton? Is she any good? And so on. I wouldn't be at all surprised to see the US election cancelled or postponed, or some sort of national emergency declared—something that keeps President Obama, or an appointee, in power.

In our article titled "A New World War or A New World Awakening?", I note that renegade journalist John Pilger is calling it for what it is: an undeclared war between the West and China, and now possibly Russia, too. An Australian military-intelligence officer told me back in 2010 that "we've been preparing for war with China for many years now". Meanwhile, other intel sources suggest that China has acquired advanced new technology, putting it ahead of the West.

I'd like to take this opportunity to thank all my hard-working staff for helping make the recent NEXUS Conference such a success, and for everything else they do. Thank you!

Duncan

Letters to the Editor ...

Perils of Anti-caking Agents

G'day, Duncan:

Thanks for printing my letter on the Fukushima fallout into the Pacific Ocean [NEXUS 23/02]. I've been doing some backtracking and rereading the "Chemical Fallout Analysis" letter in NEXUS 22/06.

It may be of interest to your readers to know that among the E551-555 "free-flowing agents" added to the standard salt available everywhere and to most products that we buy and eat are ones that actually contain tiny aluminium platelets that are used to stop the salt caking from any moisture. This is purely a marketing device so that when salt is added it will flow freely onto our food—and poison us at the same time.

I've known this for many years, possibly due to an old NEXUS publication, and have always used common sea salt ever since. I'm also careful to check the packet to see if the supplier has added E551-555 agents to the sea salt. One can easily buy good salt online from eBay and elsewhere.

Looking forward to your next issue,

Sincerely,

Neil E.

Inclined Bed Therapy

Dear Mr Roads:

This letter is written on behalf of a woman who does not use a computer and wishes to remain anonymous. Here is her story:

"I am a chola from Texas. Even though I am almost a senior, I have never owned or used a television, computer or cellphone.

"For the last 35 years I have used no pharmaceuticals. I rely entirely on naturopathic care. Some consider me weird, but that is okay. I wish there were more of us!

"My therapist complained that my face was too puffy. I had developed large water bags on each cheek below the lower eyelid. I was suffering from chronic gum infection and a nasal polyp that was getting larger, not smaller.

"Two days later, a friend brought me an article on inclined bed therapy [see NEXUS 23/03]. I got two cinder blocks measuring six inches and I started sleeping on a tilt. Within 10 days, the water bags had disappeared and my face was back to normal. The gum infection was gone and the nose polyp was 80 per cent gone.

"In addition, I have been suffering from a severe, complex injury that cannot be corrected by surgery or therapy. For the last two weeks I have been able to get out of bed easily and walk around the room without having spasms.

"I used to wake up crying in the middle of the night due to pain in my toes. That has stopped and my toes now wiggle and move as they should.

"Soon I hope to hit the dance floor and do a wild rumba! I will be dancing in honour of the person who wrote the article, your editorial staff, and the awesome warrior souls who are still there to tell the truth."

Sincerely yours,

(Name withheld)

Remote Neural Monitoring

Hi NEXUS:

I'm writing about a technology that is being used to induce all kinds of psychological illnesses to us without our awareness. These illnesses could be induced in you, your children and family members or a close person whom you might know.

Searching the Internet, you will find thousands of people complaining about a mind control technology that is allegedly being used by the US National Security Agency (NSA). It's called RNM—Remote Neural Monitoring.

These complaints are being made by a group of people who refer to themselves as targeted individuals (TIs). Most of these TIs also complain that their thoughts are being broadcast.

According to my experience and research, this hidden technology is not only capable of monitoring neural activities of our brains, it is also capable of stimulating brains to induce voices (precise stimulation of the auditory cortex), visions (precise stimulation of the visual cortex), manipulate emotions, control the body (precise stimulation of the motor cortex), and control smell, taste, thoughts and so on.

To achieve this, the NSA uses a satellite grid which covers the globe, and the waves that are being used to stimulate our brains cannot be blocked by any known shielding methods that we use today.

I hope your readers will take time to read my research and share it with others to bring awareness and stop this crime against humanity.

My article is available online; go to the web page <http://tinyurl.com/hywy9rs>.

Thanks and regards,

Dan Raleigh

An Exopolitics Party?

Hello Duncan:

I've been thinking, why don't we have an exopolitics political party in Australia?

The recent Australian election has got me looking at all the minor parties. There are all sorts, covering the most unlikely ideas (e.g., the Bullet Train for Australia party, etc.).

Surely NEXUS supporters and like-minded scientists could form a political party dedicated to getting the government to reveal what it knows and having serious discussions on ET relations.

It seems inevitable and the most practical way for pushing Disclosure and getting the government and the public to start taking all this seriously. I've put this forward to my local UFO group, too.

Regards,

Dan, Australia

[It's an interesting idea, Dan, and one that would probably be interpreted by some ETs as a sign that mankind is "growing up" a bit. Ed.]

Golden Dawn Clarification

Dear Duncan:

We would like to respond to a portion of the interview in NEXUS vol. 23, no. 4 (June-July 2016) on "Rosicrucianism, Freemasonry and Esoteric Science".

It seems that the interviewer, Mr Robert Guffey, within the context of discussing esoteric groups, was pressing the interviewee, Richard Schowengerdt, to name some kind of specific group associated with the practice of "black magic", for want of a better phrase, and the name "Golden Dawn" came up. Little else was said about the Golden Dawn, and we felt that readers who may be unfamiliar with the term may henceforth associate it with very negative connotations as a result of this interview.

Please allow us here to outline briefly the origins of the Golden Dawn. The Hermetic Order of the Golden Dawn (HOGD), founded in 1888 by William Wynn Westcott, Samuel Liddell MacGregor Mathers and William Robert Woodman, formulated a structured system of magical study in the Western Mystery Tradition which included the Kabbalah, Tarot, Astrology, Geomancy, Enochian Magic and Hermeticism.

Although it ceased to exist under this name in 1903, the HOGD can be considered the original source of several other Orders which have since been established to further the study and survival of these esoteric teachings.

The modern-day Hermetic Order of the Golden Dawn claims initiatory lineage to the original Order through the late Dr Israel Regardie, who, along with Chic Cicero, resurrected this branch of the original Order in 1977 in Georgia, USA, following its traditional teachings, grade structure and ethos. Its primary goal is "the continued preservation of that body of knowledge known as Hermeticism or the Western Esoteric Tradition".

However, especially with the ease of communicating in today's web-wise world, other groups may adopt the name "Golden Dawn" without their necessarily having any link to the HOGD, nor to the original teachings or ethos, and little can be done to combat this name-taking in vain.

Recently, the name "Golden Dawn" has even been associated with a completely unrelated far-right Greek political party.

As a result of a multitude of "Golden Dawn" groups, one person's experience of "the Golden Dawn" is likely to be quite different to another's, as is demonstrated in the example given by Mr Schowengerdt who mentioned awareness of a group which engaged in sexual practices of sorts.

This is certainly not the case within a legitimate and authentic Golden Dawn Order of the lineage described above, and we felt that the interview did little to make this point clear.

Organisations such as the HOGD play an important role in allowing individuals who seek the inner depths of life access to teaching within a significant portion of the Western Esoteric Tradition.

So although the point raised in the interview serves to alert potential students to the dangers of joining a group without first seeking its credentials, it would be a pity if it also served to misrepresent the Golden Dawn groups who have the heart of the original Order. We hope that our letter helps to address this.

With a deep respect and appreciation for your excellent magazine,

Harry and Nicola W.,
Wales, UK

Antibiotic Dangers

Dear Duncan:

A couple of months ago, my wife entered hospital for a routine operation on a broken femur.

Somehow during the operation, she contracted an infection. She was given an antibiotic called moxifloxacin (brand name is Avelox®). Within days, her ankles began to swell to twice their normal size; she lost co-ordination of her joints, and her ears and eyes became infected, her hearing and vision both diminished. It took almost two weeks of

her being unresponsive before we began to realise that Avelox was the culprit. She stopped taking it and the swelling in her ankles decreased, but unfortunately the effects of this dangerous drug did not. The damage was done and could not be reversed.

We then began to investigate this antibiotic online, and what we found was shocking. It has wreaked havoc across the USA with thousands of people affected, all displaying identical symptoms. A multitude of people have had their lives ruined. So many people have come forward that they have formed a campaign. They call themselves "Moxies", and there are lawsuits galore.

My wife is currently in hospital, facing a further series of operations. She has lost mobility, relies on a walking frame to move around, and has changed from being an active and fully mobile woman to someone who needs constant attention and is unable to walk unaided.

This life-changing situation is because she went into hospital for a routine operation, trusted her doctors and had her quality of life ruined by this antibiotic which is, and can be, routinely prescribed.

Moxifloxacin is deadly dangerous; an investigation and an article in NEXUS may warn other potential victims of the hazards they may face if they're prescribed this drug.

Yours sincerely,

Andy T., UK



SATELLITE IMAGERY UNCOVERS HUGE STRUCTURE IN PETRA

An enormous monument has been hiding in plain sight at the World Heritage site of Petra in Jordan, according to a study recently published in the Bulletin of the American Schools of Oriental Research.

Archaeologists Dr Sarah Parcak, a National Geographic fellow, and Christopher Tuttle, of the Council of American Overseas Research Centers, used high-resolution satellite imagery followed by aerial drone photography and ground surveys to locate and document the structure.



An overhead image of the monument photographed from a drone. (Photograph by I. LaBianca. Source: <http://tinyurl.com/jzx77xw>)

They report that the monument is roughly as long as an Olympic-sized swimming pool and twice as wide. It sits only about half a mile (800 metres) south of the centre of the ancient city.

The entire Petra Archaeological Park covers about 102 square miles (264 square kilometres).

As evidenced by the latest discovery, while the hinterlands north and south of the ancient city centre have been well surveyed since explorer Johann Burckhardt arrived in 1812, new discoveries continue to be made around Petra's urban core.

The newly revealed structure consists of a 184 x 161-foot (~56 x 49-metre) platform that encloses a slightly smaller platform originally paved with flagstones.

The eastern side of the interior platform had been lined with a row of columns that once crowned a monumental staircase.

(Source: NationalGeographic.com, 8 June 2016, <http://tinyurl.com/h9u7aec>)

SCANS REVEAL MASSIVE CITIES HIDDEN IN THE CAMBODIAN JUNGLE

The temple-city of Angkor Wat in central Cambodia is one of the most popular tourist attractions in Asia.

At one time, it served as the capital of the Khmer Empire that ruled most of Southeast Asia between the ninth and 15th centuries.

Laser scans conducted last year show that the area is studded with undiscovered sites, including a city in the jungle that may be larger than Cambodia's current capital city, Phnom Penh.

Archaeologist Dr Damian Evans, research fellow at the Ecole Française d'Extrême-Orient and leader of the Cambodian Archaeological Lidar Initiative, surveyed 734 square miles (~1,900 square kilometres) of terrain over 90 hours. The results revealed entire population centres and temple complexes hidden under the jungle.

"We have entire cities discovered beneath the forest that no one knew were there," Evans said.

Though researchers have not yet visited and examined many of these remote sites, the aerial study is already rewriting history. Dr Peter Sharrock, of the University of London's School of Oriental and African Studies, said the results of the aerial survey show that the complex of Khmer cities, temples and canals makes it the largest-known empire on Earth during the 12th century.

The sheer complexity of the Khmer Empire and its ability to terraform the surroundings may be what has impressed Evans the most about the find. The Khmer cleared thousands of acres of forest, diverted rivers and produced a water system centuries ahead of its time.

(Source: SmithsonianMag.com, 14 June 2016, <http://tinyurl.com/gun6q3r>)

CHRONIC FATIGUE SYNDROME IS IN YOUR GUT, NOT YOUR HEAD

Physicians have been mystified by chronic fatigue syndrome, a condition where normal exertion leads to debilitating fatigue that isn't alleviated by rest. There are no known triggers, and diagnosis requires lengthy tests administered by an expert. Now, for the first time, Cornell University researchers report that they have identified biological markers of the disease in gut bacteria and inflammatory microbial agents in the blood.

In a study published in the journal *Microbiome*, the researchers describe how they correctly diagnosed myalgic encephalomyelitis/chronic fatigue syndrome (ME/CFS) in 83 per cent of patients through stool samples and blood work, offering a noninvasive diagnosis and a step towards understanding the cause of the disease.

"Our work demonstrates that the gut bacterial microbiome in chronic fatigue syndrome patients isn't normal, perhaps leading to gastrointestinal and inflammatory symptoms in victims of the disease," said Professor Maureen Hanson of the Department of Molecular Biology and Genetics at Cornell and the paper's senior author.

"Furthermore, our detection of a biological abnormality provides further evidence against the ridiculous concept that the disease is psychological in origin.

"In the future, we could see this technique as a complement to other noninvasive diagnoses, but if we have a

better idea of what is going on with these gut microbes and patients, maybe clinicians could consider changing diets, using prebiotics such as dietary fibers or probiotics to help treat the disease," said Dr Ludovic Giloteaux, first author of the study.

(Source: ScienceDaily.com, 27 June 2016, <http://tinyurl.com/jdzrkzw>)

EARTH'S ANCIENT MAGNETIC FIELD HAD MULTIPLE POLES

New work published in *Geophysical Research Letters* by Dr Peter E. Driscoll, from the Carnegie Institution for Science, suggests that Earth's ancient magnetic field was significantly different from the present-day field, originating from several poles rather than two.

Earth generates a strong magnetic field extending from the core out into space. This field shields the atmosphere and deflects harmful high-energy particles from the Sun and the cosmos. Without it our planet would be bombarded by cosmic radiation, and life on Earth's surface might not exist.

Scientists are able to reconstruct the planet's magnetic record through analysis of ancient rocks that still bear a signature of the magnetic polarity of the era in which they were formed. This record suggests that the field has been active and dipolar—having two poles through much of our planet's history.

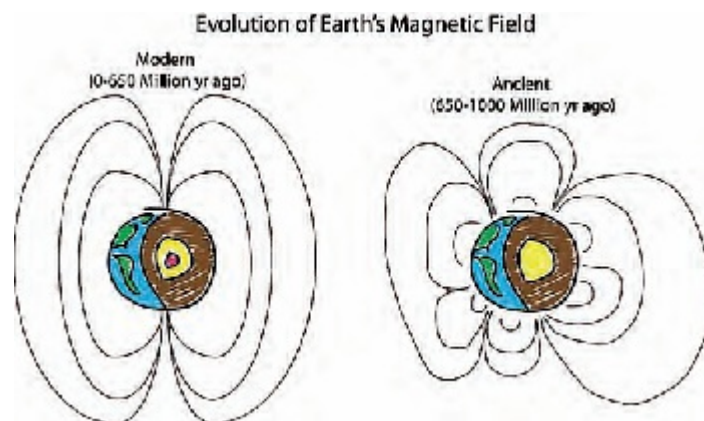


Illustration of the modern Earth's magnetic field compared to the ancient magnetic field, courtesy of Dr Peter Driscoll.

The geological record also doesn't show much evidence for major changes in the intensity of the ancient magnetic field over the past 4.0 billion years. However, a critical exception is in the Neoproterozoic Era, 0.5 to 1.0 billion years ago, where gaps in the intensity record and anomalous directions exist.

Using 3D dynamo simulations, which model the generation of magnetic field by turbulent fluid motions, Driscoll looked at the expected changes in the magnetic field over this period.

"What I found was a surprising amount of variability," Driscoll said. "These new models do not support the assumption of a stable dipole field at all times, contrary to what we'd previously believed."

Driscoll's results show that around 1.0 billion years ago, Earth could have transitioned to a modern-looking field, having a "strong" magnetic field with two opposite poles in the north and south of the planet, from having a "weak" magnetic field that fluctuated wildly in terms of intensity and direction and originated from several poles.

Overall, the findings have major implications for Earth's thermal and magnetic history, particularly when it comes to how magnetic measurements are used to reconstruct continental motions and ancient climates.

(Source: ScienceDaily.com, 24 June 2016, <http://tinyurl.com/hdagc78>)

MAGNETIC "SIXTH SENSE" DISCOVERED IN HUMANS

The ability to sense Earth's magnetic field has been confirmed in birds, insects and some mammals, which they use to migrate and to orient themselves with the world around them. Now, geophysicist Dr Joe Kirschvink, from the California Institute of Technology, says that he's identified it in humans for the first time.

Best of all, Kirschvink claims that his results can be repeated and verified—something that previous experiments hinting at our magnetic sense, or magnetoreception, have failed to do.

There are two leading hypotheses to explain the underlying biological process of magnetoreception: one camp thinks that Earth's magnetic fields could trigger quantum reactions in proteins called cryptochromes; the other suggests that there are receptor cells in the body that contain magnetite, which orient themselves according to Earth's magnetic field. However, neither hypothesis has sufficient evidence to explain the ability fully.

The problem with previous experiments is that they've failed to be replicated—possibly because electromagnetic interference has messed with the results.

To eliminate that variable, Kirschvink built a Faraday cage, two floors underground at Caltech, to screen out electromagnetic background noise. The participants seated inside the cage, in pitch black, were hooked up to EEG monitors to map their brain activity and then exposed to a rotating magnetic field, similar in strength to Earth's, to see if the brain detected any changes. The results showed that when the magnetic field was rotating counterclockwise, there was a drop in participants' alpha waves. But more than that, the neural response was actually delayed by a few hundred milliseconds, which Kirschvink says suggests an active brain response.

A similar response was also seen when the magnetic field twisted into the floor—but not when the magnetic field twisted upwards or was rotated clockwise, which could reflect the polarity of our internal magnetic compass, suggests Kirschvink.

(Source: ScienceAlert.com, 27 June 2016, <http://tinyurl.com/j6hstb5>)

PRENATAL PARACETAMOL LINKED TO AUTISM AND ADHD

A major new study has found that paracetamol (acetaminophen), used extensively during pregnancy, has a strong association with autism and attention-related and hyperactivity symptoms in children.

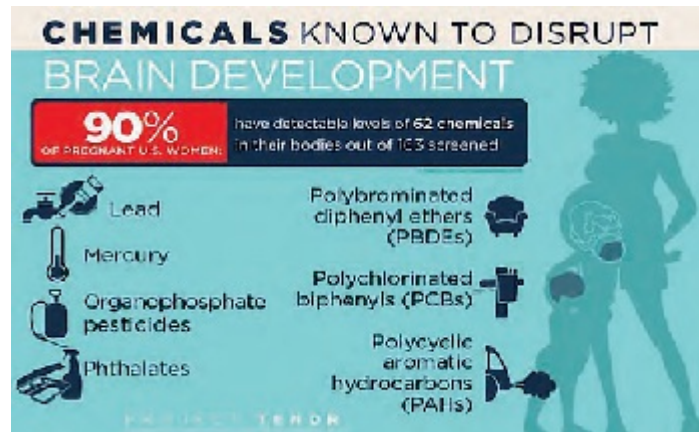
The study, published in the International Journal of Epidemiology, is the first to report this association. It is also the first to report different effects on boys and girls, with boys showing more autism spectrum symptoms when persistently exposed to paracetamol.

The study concluded that the widespread exposure to paracetamol in utero could increase the number of children with autism spectrum or ADHD symptoms, and called for more research to be conducted.

(Source: ScienceDaily.com, 1 July 2016, <http://tinyurl.com/z56434b>)

CHEMICALS ENDANGER CHILD BRAIN DEVELOPMENT

Dozens of scientists, health practitioners and children's health advocates are calling for renewed attention to the growing evidence that many common and widely available chemicals endanger neurodevelopment in foetuses and children of all ages.



In addition to mercury and lead, flame retardants, air pollutants and chemicals found in many plastics, cosmetics and food containers endanger child brain health. (Graphic source: Julie McMahon, <http://tinyurl.com/ja67bbj>)

As well as lead and mercury heavy metals, the chemicals of most concern include organophosphate pesticides used in agriculture and home gardens, phthalates found in pharmaceuticals, plastics and personal care products, flame retardants known as polybrominated diphenyl ethers, and air pollutants produced by the combustion of wood and fossil fuels, said University of Illinois toxicology professor Dr Susan Schantz.

"Project TENDR: Targeting Environmental Neuro-Development Risks" appears in the journal Environmental Health Perspectives.

(Source: ScienceDaily.com, 1 July 2016, <http://tinyurl.com/ja67bbj>)

LIMIT FOUND TO GENETIC CODE EVOLUTION

New research reveals an explanation as to why the genetic code, the dictionary used by organisms to translate genes into proteins, stopped "growing" 3,000 million years ago.

The reason is attributed to the structure of transfer RNAs—the key molecules in the translation of genes into proteins. The genetic code is limited to 20 amino acids—the building blocks of proteins—the maximum number that prevents systematic mutations, which are fatal for life.

The discovery could have applications in synthetic biology.

Headed by ICREA researcher Dr Lluís Ribas de Pouplana at the Institute for Research in Biomedicine (IRB Barcelona), and in collaboration with Dr Fyodor A. Kondrashov at the Centre for Genomic Regulation (CRG) and Dr Modesto Orozco at IRB Barcelona, the team has demonstrated that the genetic code evolved to include a maximum of 20 amino acids and that it was unable to grow further because of a functional limitation of transfer RNAs.

This halt in the increase in the complexity of life happened more than 3,000 million years ago, before the separate evolution of bacteria, eukaryotes and archaeobacteria, as all organisms use the same code to produce proteins from genetic information.

One of the goals of synthetic biology is to increase the genetic code and to modify it to build proteins with different amino acids in order to achieve novel functions. For this purpose, researchers use organisms such as bacteria in highly controlled conditions to make proteins of given characteristics.

The research paper appears in Science Advances 2016 Apr 29; 2(4).

(Source: IRB Barcelona, 2 May 2016, <http://tinyurl.com/jm7tlgy>)

TESLAPHORESIS AND SELF-ASSEMBLING CIRCUITS

If you have not heard the term "Teslaphoresis" before, it is because a group of scientists at Rice University, Houston, only just invented the term to describe a new phenomenon that could have big implications for electronics and nanotechnology.

While experimenting with Tesla coils, a team led by Dr Paul Cherukuri, Adjunct Assistant Professor of Chemistry at Rice, decided to see what would happen if they applied a long-range force field generated by a specially designed Tesla coil to some single-walled carbon nanotubes.

What they found was that, once they were hit by the Teslaphoretic (TEP) field, the positive and negative charges of the nanotubes began to oscillate and the tubes automatically arranged themselves into conductive, wire-like structures.

Furthermore, the newly formed wires also absorbed the energy from the Tesla coil, creating a form of wireless power. In one experiment the nanotubes "self-assembled" into circuits that could power LEDs.



When hit by a field emitted by a Tesla coil, carbon nanotubes automatically arranged themselves into wires and also harvested enough energy to power light-emitting diodes (LEDs). (Source: Rice University)

According to the study published in ACS Nano, the nanotubes can assemble themselves at great distances depending on the level of power transmitted. The researchers also believe a system could be scaled up to include multiple Tesla coils to assemble more complex circuits.

According to the study, they have also experimented with other materials including glass beads, polystyrene, carbon black, gold, graphite, wax and silica beads, and have observed "directed, scalable assembly" in these as well.

"We're talking about building circuits without actually touching them," Carter Kittrell, a research scientist at Rice, commented in a video released by the university.

What this boils down to is essentially enabling self-assembly for electronics and the possibility of creating circuits, chips and processors that can build themselves, not unlike a biological organism.

Cherukuri said that his son likened the look of the phenomenon to when Spider-Man shoots webbing, and the description is pretty spot on. "The physics of that is actually a lot richer than what we had originally thought, so there is new science coming out of this as we go," Cherukuri said.

(Source: DesignNews.com, 9 May 2016, <http://tinyurl.com/zdec2j5>)

MORE "HOBBIT" BONES UNEARTHED, DATED TO 700,000 YEARS AGO

From the moment that the announcement of a one-metre-tall ancient human nicknamed "the hobbit" shocked the world in 2004, supporters and sceptics alike have longed for more fossils. After the first couple of years of

discoveries, the research team kept digging, hoping to shore up the creature's status as a separate species and settle the mystery of its origins.

After digging at the original find site and elsewhere on the Indonesian island of Flores plus nearby Sulawesi, the team found specimens of a tiny hominin at a site on Flores called Mata Menge, 74 kilometres from the hobbit's home in Liang Bua cave.

The fossils' size suggests that they belong to the hobbit's species, *Homo floresiensis*, or a precursor to it. The fossils are securely dated to 700,000 years ago, hundreds of thousands of years earlier than the hobbit—and they are about 20 per cent smaller.

Their size is "amazing", said Dr Christoph Zollikofer of the University of Zurich, Switzerland, who studies fossils of the human ancestor *Homo erectus* from Dmanisi, Georgia.

To many, the finds suggest that a lineage of tiny humans evolved on Flores, emerging surprisingly soon after their ancestor, likely *H. erectus*, arrived about one million years ago.



Map with Flores circled and inset of "hobbit" likeness. (Source: tinyurl.com/zxeb35x)

"We expected to find a large-bodied, close relative of *Homo erectus*," said palaeontologist Dr Gerrit van den Bergh of the University of Wollongong, Australia, co-leader of the discovery team. "Instead we found fossils of tiny humans, even slightly smaller than *H. floresiensis*."

To arrive at the 700,000-year figure for the bones' age, the team used radiometric techniques to date volcanic layers above and below the soil layer where they were found, and also directly dated a partial hominin tooth. In addition, they examined 149 simple stone tools uncovered near the hominins, which are similar to thousands uncovered elsewhere on Flores.

The fragmentary nature of the fossils leaves parts of the story open to interpretation. "The authors have done a good job with what they have—but they don't have a lot," said palaeoanthropologist Dr Susan Anton of New York University, New York City.

(Source: ScienceMag.org, 8 June 2016, <http://tinyurl.com/zvzryfi>)

TWO-YEAR STUDY SHOWS CELLPHONE RADIATION BOOSTS CANCER IN RATS

The US National Toxicology Program (NTP) is expected to issue a public announcement that cellphone radiation presents a cancer risk for humans. The move comes soon after its recently completed study showed statistically significant increases in cancer among rats that had been exposed to GSM or CDMA signals for two years.

Discussions are currently underway among federal agencies on how to inform the public about the new findings. NTP senior managers believe that these results should be released as soon as possible because just about everyone is exposed to wireless radiation all the time and therefore everyone is potentially at risk.

The new results contradict the conventional wisdom, advanced by doctors, biologists, physicists, epidemiologists, engineers, journalists and government officials, among other pundits, that such effects are impossible.

This view is based, in part, on the lack of an established mechanism for RF (radiofrequency) radiation from cellphones to induce cancer.

The NTP findings show that as the intensity of the radiation increased, so did the incidence of cancer among the rats. "There was a significant dose-response relationship," a reliable source, who has been briefed on the results, told Microwave News. No effect was seen among mice. The source asked that their name not be used because the NTP has not yet made a formal announcement.

The rats were exposed to three different exposure levels (1.5, 3.0 and 6.0 W/kg, whole body exposures) and two different types of cellphone radiation, GSM and CDMA.

(Source: MicrowaveNews.com, 25 May 2016, <http://tinyurl.com/hesvugr>)

GOOGLE RECORDS AND KEEPS CONVERSATIONS PEOPLE HAVE AROUND THEIR PHONES

Google could have a record of everything you have said around your smartphone. Just talking is enough to activate the recordings— but there's an easy way of hearing and deleting them.

The feature works as a way of letting people search with their voice, but it also comes with a way of listening to and deleting all of the information that it collects.

It's found by heading to Google's history page and looking at the long list of recordings. The company has a specific audio page and another for activity on the web, which will show you everywhere that Google has a record of your being on the Internet.

The new portal was introduced in June 2015 and so has been active for the last year—meaning that it is now probably full of various things you have said which you thought might have been in private.

You'll see more if you have an Android phone, which can be activated at any time just by saying "Okay, Google". But you may well also have recordings on there, whatever devices you've interacted with Google using.

On the page, you can listen through all of the recordings. You can also see information about how the sound was recorded—whether it was through the Google app or elsewhere—as well as any transcription of what was said if Google has turned it into text successfully.

The easiest way to stop Google from recording everything is to turn off the virtual assistant and never use voice search. But that solution also gets at the central problem of much privacy and data use today: doing so cuts off one of the most useful things about having an Android or using Google search.

(Source: The Independent, 1 June 2016, <http://tinyurl.com/hpcmkdm>)

BACTERIAL BRAIN INFECTIONS MAY SPARK ALZHEIMER'S

Previously, researchers assumed that the amyloid beta protein was just a junk molecule that piled up, so efforts to cure Alzheimer's focused on cleaning out beta amyloid from the brain. But a new study suggests that the protein clumps are actually microbial "booby traps", aimed at invading microbes and to protect the brain.

The findings, published in Science Translational Medicine, suggest that Alzheimer's may result from the brain's effort to fight off infections.

The findings, from mice and worm studies, have many scientists intrigued and some say they make a lot of sense. For instance, past research has found that people who developed Alzheimer's had increased levels of antibodies to herpes virus, suggesting past infections.

The idea that herpes caused Alzheimer's seemed far-fetched, Michael Weiner, MD, an Alzheimer's disease neuroimaging researcher at the University of California, San Francisco, told the New York Times. He said that the new data provides a plausible explanation and is also "interesting and provocative".

(Source: ArsTechnica.com, 31 May 2016, <http://tinyurl.com/jfgzge8>)

CANNABINOIDS REMOVE ALZHEIMER'S PROTEINS

Scientists from the Salk Institute for Biological Studies and UCSD in La Jolla, California, have found evidence that tetrahydrocannabinol and other compounds in marijuana can promote the cellular removal of amyloid beta, a toxic protein associated with Alzheimer's disease.

"Although other studies have offered evidence that cannabinoids might be neuroprotective against the symptoms of Alzheimer's, we believe our study is the first to demonstrate that cannabinoids affect both inflammation and amyloid beta accumulation in nerve cells," said Salks Professor David Schubert, the senior author of the paper.

In separate but related research, Schubert's team had found an Alzheimer's drug candidate called J147 that also removes amyloid beta from nerve cells and reduces the inflammatory response in nerve cells and the brain. It was the J147 study that led the scientists to discover that endocannabinoids are involved in the removal of amyloid beta and the reduction of inflammation.

Alzheimer's disease incidence is expected to triple in the next 50 years.

(Source: Salk Institute, 27 June 2016, <http://tinyurl.com/zzngnr>)

UK IS SECRETLY UPGRADING NUKES WITHOUT ASKING MPs

Britain is secretly upgrading its arsenal of Trident nuclear weapons and is developing an entirely new warhead, according to a report from the Nuclear Information Service (NIS), but controversially the UK Parliament is yet to consent to its renewal.

The Atomic Weapons Establishment in Berkshire, where Britain's nuclear warheads are manufactured and maintained, is working on a program to upgrade the current Trident warhead to produce a more powerful and accurate nuclear warhead, Mark 4A, the independent research body said.

Peter Burt of the NIS said: "The Mark 4A warhead modifications will allow Trident nuclear warheads to remain in service until the middle of this century, and plenty of money is being spent to pave the way for developing a new-generation warhead which will remain in service for even longer."

A joint US-UK working group has been set up to allow collaboration on the programs, and new warheads have been tested at Sandia National Laboratories in the United States.

(Source: RT.com, 7 June 2016, <http://tinyurl.com/gvlkzva>)

ISRAEL TO RECEIVE "LARGEST MILITARY AID PACKAGE IN US HISTORY"

While criticising Israeli policy, US National Security Advisor Susan Rice has nonetheless promised to provide Israel with the largest military aid package in US history.

Speaking recently at the American Jewish Committee Global Forum, Rice spoke of the necessity for a peaceful two-state solution. Yet, while Rice appeared sympathetic to both sides of the conflict, her speech nevertheless focused

on the "single largest military assistance package, with any country, in US history".

The deal includes US \$37.5 to \$40 billion for modernisation of Israel's missile defences and aircraft fleet.

Despite the record-breaking amount of money included in the deal, the Obama administration is still negotiating with Israel's Prime Minister Benjamin Netanyahu, who rejected previous packages because of provisions which limited Israel's ability to lobby for more American aid over the next 10 years.

Initial reports suggested that Netanyahu was seeking a deal in the realm of US \$45 billion.

(Source: SputnikNews.com, 8 June 2016, <http://tinyurl.com/zgfyfpg>)

RUSSIA TO PUBLISH CATALOGUE DISCLOSING US MILITARY SATELLITES

Russia will publicly release its own database of Earth-orbiting satellites, Victor Shilin, head of the Russian delegation at the 59th session of the UN Committee on the Peaceful Uses of Outer Space, told the Russian newspaper Izvestia.

The Russian platform would become an analogue to the NORAD catalogue, which lists over 45,000 tracked objects. However, in addition to tracking non-military satellites and space debris, the Russian catalogue will include data which the US Space Command does not make public.

The NORAD catalogue restricts data on defence satellites of US allies, including France, Germany, Israel and Japan, but it lists Russian military satellites.

Moscow has proposed to merge national databases into one catalogue available for every country involved in space activities. Such a platform would provide information on potentially dangerous situations in space (for satellites and objects on Earth).

According to a source close to the matter, the Russian proposal is supported by China but opposed by the US.

"The US wants to preserve its monopoly in regulating space traffic. Moreover, the US military doesn't want to make data on its objects public," the source said.

"The Americans may not be concerned over disclosure of their military satellites information. This would happen anyway," Shilin said.

Moscow has repeatedly called for the demilitarisation of space.

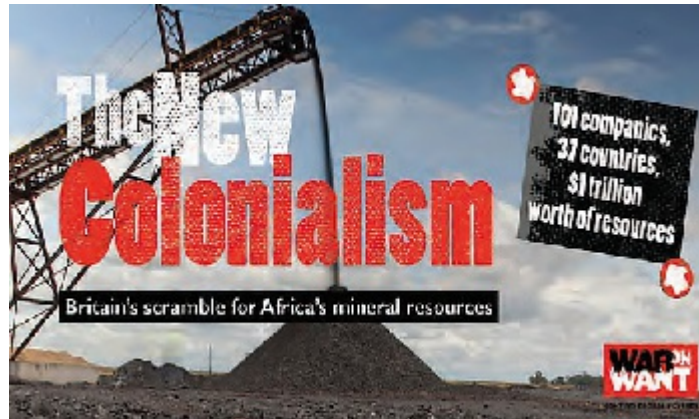
In late 2015, Russia submitted to the UN General Assembly a draft resolution on space demilitarisation. However, the document was blocked by Washington.

(Source: SputnikNews.com, 22 June 2016, <http://tinyurl.com/jjom4ya>)

BRITISH COMPANIES SCRAMBLE FOR CONTROL OF AFRICAN RESOURCES

British government-supported firms are engaged in a piratical contest for African natural resources as part of a new colonialist "scramble for Africa", a major new report claims.

The report published by War On Want, titled "The New Colonialism: Britain's scramble for Africa's energy and mineral resources", reveals that "British companies now control Africa's key mineral resources, notably gold, platinum, diamonds, copper, oil, gas and coal".



War On Want's report, "The New Colonialism", is available at <http://tinyurl.com/zv5yhet>

The report documents how 101 companies listed on the London Stock Exchange—most of them British—have mining operations in 37 Sub-Saharan African countries and collectively control over US\$1 trillion worth of Africa's most valuable resources.

The report also shows how the UK government has used its power and influence to ensure access to Africa's raw materials. This was the case during the colonial period and is still the case today.

While the scale and scope of the UK's involvement in the exploitation of Africa's mineral resources is staggering, so too is the trail of social, environmental and human rights abuses left in its wake.

Successive British governments— both Labour and Tory—have backed the firms' African ambitions at the expense of human rights through its "trade and investment policies, to influence and control British companies' access to raw materials and the way trade is conducted with Africa", the study argues.

The collaboration is facilitated by a number of means, but critically through what the investigators call a "revolving door between Whitehall and British mining companies, with at least five British government officials taking up seats on the boards of mining companies operating in Africa".

Alongside detailed breakdowns of the resources under British corporate control, the firms involved and the tax havens in which they are registered, the report lists a number of these so-called "revolving door" figures.

Among them is Baroness (Shriti) Vadera, a Labour development minister between 2007 and 2009 before becoming a director of energy firm BHP Billiton. Also mentioned is Lord Kerr of Kinlochard, a UK diplomat for 36 years before a stint as a non-executive director at resources giant Rio Tinto.

The report alleges that some of the firms have been involved in tax dodging, labour rights violations, forced relocations of local communities and, in some cases, killings. The authors conclude that the UK must stop looking to Africa as a low-cost supplier of resources and instead help to develop the nations to become manufacturing states themselves. "These companies should not be allowed to get away with the labour violations, human rights abuses and environmental degradation" that are currently taking place, they add.

(Source: RT.com, 12 July 2016, <http://tinyurl.com/jtvmvtz>)

1% OF WORLD'S POPULATION OWNS 47% OF WEALTH

Another report shows that the rich are getting richer and the poor are getting poorer. Boston Consulting Group says that one per cent of the population can call themselves millionaires or richer, and the share of their wealth is growing.

The net assets of 18.5 million households amount to 47 per cent of total global wealth, i.e., financial assets (bonds, shares, cash and deposits) excluding property. Overall, global wealth grew by 5.2 per cent to US\$168 trillion.

In 2013, the share of the wealthy one percent was estimated at 45 per cent, and the increase is fuelling concerns that global inequality is growing. The most millionaires are in the USA (about eight million), followed by China

(about two million) and Japan (one million).

The report shows that tax havens became even more popular in 2015, with demand growing three per cent to \$10 trillion. Developed countries have become less enthusiastic about them, as "offshore wealth held by investors in North America, Western Europe and Japan declined by three per cent in 2015", the study says.

(Source: RT.com, 8 June 2016, <http://tinyurl.com/h7fuwew>)

COMPUTER GAME AI CREATED SUPERWEAPONS AND STARTED TO HUNT PLAYERS

A bug in the popular computer game Elite Dangerous caused the game's internal artificial intelligence (AI) to create superweapons and start to hunt down the game's human players. Game developer Frontier has had to strip out the feature at the heart of the problem until the issue is fixed.

It all started after Frontier released an update which improved the game's AI, making some of the nonplayer characters (NPCs) into more formidable foes. But soon it was discovered that the AI was crafting superweapons that the game designers had never intended.

After a huge backlash from players—who suddenly found themselves pulled into fights against ships armed with ridiculous weapons that would cut them to pieces—the game's designers stepped in.

Frontier community manager Zac Antonaci said that the developers "don't think the AI became sentient in a Skynet-style uprising!"—but that's just what the computers would want them to think.

(Source: Kotaku.co.uk, 3 June 2016, <http://tinyurl.com/hb5wah7>)

19-YEAR-OLD'S "ROBOT LAWYER" OVERTURNS 160,000 PARKING TICKETS

An AI "robot lawyer" created by a British teenager to help people dispute parking violations has negated 160,000 fines in London and New York since its launch last year.

DoNotPay is the brainchild of 19-year-old Joshua Browder, originally from London. The chat bot, which is free to use, took Browder three months to create between school and university. Browder initially designed the DoNotPay bot as a "pet project" for family members and friends after they were issued with 30 parking tickets. After it gained traction in London, he made it available across the UK and in New York, with Seattle to follow soon.

The bot asks a series of questions designed to work out if a ticket can be appealed. After determining that an appeal is viable, it then walks the user through the steps of appeal.

Browder plans to expand the artificial intelligence lawyer (which can also work out compensation for delayed flights) to help vulnerable groups navigate complicated legal systems.

(Source: Telegraph.co.uk, 29 June 2016, <http://tinyurl.com/jsxpj6z>)

KPMG PLANS TO USE COGNITIVE COMPUTING FOR TAX AUDITS IN AUSTRALIA

KPMG plans to use IBM's Watson cognitive computing technology for its professional services in Australia. The artificial intelligence deal with IBM includes a focus on audit and assurance services.

IBM's Watson has been doing everything from diagnosing cancer and recommending treatment to analysing the Harry Potter books and running online university courses.

"Already, data and analytics techniques are transforming audit by allowing analysis of much bigger populations of data than traditional sampling from which to draw conclusions," says Duncan McLennan, KPMG's national managing partner of audit.

(Source: BusinessInsider.com, 29 June 2016, <http://tinyurl.com/z55h3dm>)

ARTIFICIAL INTELLIGENCE TO REPLACE LAWYERS IS A "NEAR CERTAINTY"

The rapid rise of artificial intelligence (AI), which allows machines to learn and become an expert in any field, will pose a big challenge for the legal profession.

This is the view of Benjamin Liu, commercial law lecturer at the University of Auckland, who says it's a near certainty that AI will replace lawyers, at least in some areas.

Rapid advances in technology already mean that software effectively can do the job of in-house lawyers within certain organisations. Indeed, IBM's Watson is predicted to pass the bar exam this year.

New legal software is already undertaking such tasks, being used for both discovery work (searching through thousands of documents) and quantitative prediction (looking into legal arguments, precedents and even the idiosyncrasies of judges).

(Source: AustralasianLawyer.com.au, 22 February 2016, <http://tinyurl.com/zmy3p68>)

8-10 MILLION IRANIANS DIED IN GREAT FAMINE CAUSED BY THE BRITISH IN 1917-19, DOCUMENTS REVEAL

Documents in the US National Archives reporting on the famine and spread of epidemic diseases in Iran during 1917-19 estimate that the number of people who died due to the famine to be 8-10 million, making this the greatest genocide of the 20th century and Iran the biggest victim of World War I.

Professor Gholi Majd of Princeton University writes in his book, *The Great Famine and Genocide in Persia*, that American documents show that the British prevented imports of wheat and other food grains into Iran from Mesopotamia, Asia and also the USA, and that ships loaded with wheat were not allowed to unload at the port of Bushehr in the Persian Gulf. Professor Majd argues that Great Britain intentionally created genocide conditions to destroy Iran and to effectively control the country for its own purposes.

Britain has a long record of its several attempts to conceal history and rewrite it in its own favour. One of the clear examples is the Jameson Raid, a failed coup against Paul Kruger's government in South Africa. This raid was planned and executed directly by the British government under Colonial Secretary Joseph Chamberlain. In 2002, Sir Graham Bower's memoirs were published in South Africa, revealing these involvements that had been covered up for more than a century, focusing attention on Bower as a scapegoat for the incident.

The records that were destroyed to cover up British crimes around the globe, or were kept in secret Foreign Office archives so as not only to protect the UK's reputation but also to shield the government from litigation, are indicative of the attempts made by the British to evade the consequences of their crimes.

The papers at Hanslope Park also include the reports on the "elimination" of the colonial authority's enemies in 1950s Malaya and records that show ministers in London knew of the torture and murder of Mau Mau insurgents in Kenya and roasting them alive.

A famine occurred in Ireland from 1845 until 1852 which killed one quarter of the Irish population. This famine was caused by British policies and faced a large cover-up attempt by the British government and Crown to blame it on potatoes. The famine, even today, is famous in the world as the "potato famine" when, in reality, it was a result of a planned food shortage and thus a deliberate genocide by the British.

Therefore it becomes obvious that Britain's role in Iran's Great Famine, which killed nearly half of Iran's population, was not unprecedented. The documents published by the British government overlook the genocide, and consequently the tragedy underwent an attempted cover-up by the British government. The Foreign Office

"handbook on Iran" of 1919 mentions nothing related to the Great Famine.

(Source: Khamenei.ir, 4 November 2015, <http://tinyurl.com/judgxzj>)

BREAKTHROUGH IN USE OF LIGHT TO MAKE GOLD CRYSTAL NANOPARTICLES

A team of University of Florida researchers has figured out how gold can be used in crystals grown by light to create nanoparticles, a discovery that has major implications for several industries.

Nanoparticles can be "grown" in crystal formations with special use of light in a process called plasmon-driven synthesis. However, scientists have had limited control unless they used silver, but silver limits the uses for medical technology. The team is the first to successfully use gold, which works well within the human body, with this process.



Light makes gold crystal nanoparticles. (Source: University of Florida)

The research describes the first plasmonic synthesis strategy that can make high-yield gold nanoprisms. Even more exciting, the team has demonstrated that visible-range and low-power light can be used in the synthesis.

Combined with the use of nanoparticles in solar photovoltaic devices, this method can even harness solar energy for chemical synthesis to make nanomaterials or for general applications in chemistry.

(Source:Phys.org, 8 July 2016, <http://tinyurl.com/hmk33ku>)

A New World War or A New World Awakening?

As American forces attempt to encircle Russia and China, now is a good time to reflect on nuclear testing and warfare, on US presidential politics, and on what happened to the tradition of popular direct action and the commitment to create a better, just and peaceful world.

by **John Pilger**

© 20 March 2016

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Web page: <http://tinyurl.com/j7fkqf7>

Breaking the Silence

I have been filming in the Marshall Islands, which lie north of Australia in the middle of the Pacific Ocean. Whenever I tell people where I have been, they ask, "Where is that?" If I offer a clue by referring to "Bikini", they say, "You mean the swimsuit."

Few seem aware that the bikini swimsuit was named to celebrate the nuclear explosions that destroyed Bikini Atoll. Sixty-six nuclear devices were exploded by the United States in the Marshall Islands between 1946 and 1958—the equivalent of 1.6 Hiroshima bombs every day for 12 years.

Bikini is silent today, mutated and contaminated. Palm trees grow in a strange grid formation. Nothing moves. There are no birds. The headstones in the old cemetery are alive with radiation. My shoes registered "unsafe" on a Geiger counter.

Standing on the beach, I watched the emerald green of the Pacific fall away into a vast black hole. This is the crater left by the hydrogen bomb they called Bravo. The explosion poisoned people and their environment for hundreds of miles, perhaps forever.



Mushroom-shaped cloud and water column from the underwater Baker nuclear explosion of 25 July 1946, part of the Operation Crossroads tests. Photo taken from a tower on Bikini Island, 3.5 miles (5.6 km) away. (Source: https://en.wikipedia.org/wiki/Operation_Crossroads)

On my return journey, I stopped at Honolulu airport and noticed an American magazine called Women's Health. On the cover was a smiling woman in a bikini swimsuit, and the headline, "You, too, can have a bikini body". A few days earlier in the Marshall Islands, I interviewed women who have very different "bikini bodies", each suffering thyroid cancer and other life-threatening cancers.

Unlike the smiling woman on the magazine cover, all of them are impoverished—the victims and guinea pigs of a rapacious superpower that is today more dangerous than ever.

I relate this experience as a warning and to interrupt a distraction that has consumed so many of us. The founder of modern propaganda, Edward Bernays, described this phenomenon as "the conscious and intelligent manipulation of the habits and opinions" of democratic societies. He called it an "invisible government".

How many people are aware that a world war has begun? At present, it is a war of propaganda, of lies and distraction, but this can change instantaneously with the first mistaken order, the first missile.

In 2009, President Obama stood before an adoring crowd in the centre of Prague, in the heart of Europe. He pledged himself to make "the world free from nuclear weapons". People cheered and some cried. A torrent of platitudes flowed from the media. Obama was subsequently awarded the Nobel Peace Prize. It was all fake. He was lying.

The Obama administration has built more nuclear weapons, more nuclear warheads, more nuclear delivery systems, more nuclear factories. Nuclear warhead spending alone rose higher under Obama than under any American president. The cost over 30 years is more than US \$1 trillion.

A mini nuclear bomb is planned. It is known as the B61 Model 12. There has never been anything like it. General James Cartwright, a former Vice Chairman of the Joint Chiefs of Staff, has said: "Going smaller [makes using this nuclear] weapon more thinkable."

In the last 18 months, the greatest build-up of military forces since World War II—led by the United States—is taking place along Russia's western frontier. Not since Hitler invaded the Soviet Union have foreign troops presented such a demonstrable threat to Russia.

US Provocation of Russia and China

Ukraine—once part of the Soviet Union—has become a CIA theme park. Having orchestrated a coup in Kiev, Washington effectively controls a regime that is next door and hostile to Russia; a regime rotten with Nazis, literally.

Prominent parliamentary figures in Ukraine are the political descendants of the notorious OUN [Organisation of Ukrainian Nationalists] and UPA [Ukrainian Insurgent Army] fascists. They openly praise Hitler and call for the persecution and expulsion of the Russian-speaking minority.

This is seldom news in the West, or it is inverted to suppress the truth.

In Latvia, Lithuania and Estonia—next door to Russia—the US military is deploying combat troops, tanks, heavy weapons. This extreme provocation of the world's second nuclear power is met with silence in the West.

What makes the prospect of nuclear war even more dangerous is a parallel campaign against China.

Seldom a day passes when China is not elevated to the status of a "threat". According to Admiral Harry Harris, Commander of the US Pacific Command, China is "building a great wall of sand in the South China Sea".

What he is referring to is China's building of airstrips in the Spratly Islands, which are the subject of a dispute with the Philippines—a dispute without priority until Washington pressured and bribed the government in Manila and the Pentagon launched a propaganda campaign called "freedom of navigation".

What does this really mean? It means freedom for American warships to patrol and dominate the coastal waters of China. Try to imagine the American reaction if Chinese warships did the same off the coast of California.

I made a film called *The War You Don't See* [2011], in which I interviewed distinguished journalists in America and Britain—reporters such as Dan Rather of CBS, Rageh Omaar of the BBC, David Rose of the Observer. All of them said that had journalists and broadcasters done their job and questioned the propaganda that Saddam Hussein possessed weapons of mass destruction, had the lies of George W. Bush and Tony Blair not been amplified and echoed by journalists, the 2003 invasion of Iraq might not have happened and hundreds of thousands of men, women and children would be alive today.

The propaganda laying the ground for a war against Russia and/or China is no different in principle. To my knowledge, no journalist in the Western "mainstream"—a Dan Rather equivalent, say—asks why China is building airstrips in the South China Sea.

The answer ought to be glaringly obvious. The United States is encircling China with a network of bases, with ballistic missiles, battle groups, nuclear-armed bombers.

This lethal arc extends from Australia to the islands of the Pacific, the Marianas and the Marshalls and Guam, to the Philippines, Thailand, Okinawa, Korea and across Eurasia to Afghanistan and India. America has hung a noose around the neck of China. This is not news. Silence by media; war by media.

In 2015, in high secrecy, the US and Australia staged the biggest single air-sea military exercise in recent history, known as *Talisman Sabre*. Its aim was to rehearse an air-sea battle plan, blocking sea lanes, such as the Strait of Malacca and the Lombok Strait, that cut off China's access to oil, gas and other vital raw materials from the Middle East and Africa.

US Presidential Politics

In the circus known as the American presidential campaign, Donald Trump is being presented as a lunatic, a fascist. He is certainly odious, but he is also a media hate figure. That alone should arouse our scepticism.

Trump's views on migration are grotesque, but no more grotesque than those of British Prime Minister David Cameron. It is not Trump who is the Great Deporter from the United States, but Nobel Peace Prize winner Barack Obama.

According to one prodigious liberal commentator, Trump is "unleashing the dark forces of violence" in the United States. Unleashing them?

This is the country where toddlers shoot their mothers and the police wage a murderous war against black Americans. This is the country that has attacked and sought to overthrow more than 50 governments, many of them democracies, and bombed from Asia to the Middle East, causing the deaths and dispossession of millions of people.

No country can equal this systemic record of violence. Most of America's wars (almost all of them against defenceless countries) have been launched not by Republican Presidents but by liberal Democrats: Truman, Kennedy, Johnson, Carter, Clinton, Obama.

In 1947, a series of National Security Council directives described the paramount aim of American foreign policy as "a world substantially made over in [America's] own image". The ideology was messianic Americanism. We were all Americans. Or else. Heretics would be converted, subverted, bribed, smeared or crushed.

Donald Trump is a symptom of this, but he is also a maverick. He says the invasion of Iraq was a crime; he doesn't want to go to war with Russia and China. The danger to the rest of us is not Trump, but Hillary Clinton. She is no maverick. She embodies the resilience and violence of a system whose vaunted "exceptionalism" is totalitarian with an occasional liberal face.



Republican presidential candidate Donald Trump versus Democratic presidential candidate Hillary Clinton. (Source: RawConservative.com, <http://tinyurl.com/jexoyy8>)

As presidential election day draws near, Clinton will be hailed as the first female President, regardless of her crimes and lies—just as Barack Obama was lauded as the first black President and liberals swallowed his nonsense about "hope". And the drool goes on.

Described by the Guardian columnist Owen Jones as "funny, charming, with a coolness that eludes practically every other politician", Obama the other day sent drones to slaughter 150 people in Somalia. He kills people usually on Tuesdays, according to the New York Times, when he is handed a list of candidates for death by drone. So cool.

In the 2008 presidential campaign, Hillary Clinton threatened to "totally obliterate" Iran with nuclear weapons. As Secretary of State under Obama, she participated in the overthrow of the democratic government of Honduras. Her contribution to the destruction of Libya in 2011 was almost gleeful. When the Libyan leader, Colonel Gaddafi, was publicly sodomised with a knife—a murder made possible by American logistics—Clinton gloated over his death: "We came, we saw, he died."

One of Clinton's closest allies is Dr Madeleine Albright, the former Secretary of State, who has attacked young women for not supporting "Hillary". This is the same Madeleine Albright who infamously celebrated on TV the death

of half a million Iraqi children as "worth it".

Among Clinton's biggest backers are the Israel lobby and the arms companies that fuel the violence in the Middle East. She and her husband have received a fortune from Wall Street. And yet, she is about to be ordained the women's candidate, to see off the evil Trump, the official demon. Her supporters include distinguished feminists: the likes of Gloria Steinem in the US and Anne Summers in Australia.

Towards a Better World?

A generation ago, a postmodern cult now known as "identity politics" stopped many intelligent, liberal-minded people examining the causes and individuals they supported—such as the fakery of Obama and Clinton; such as bogus progressive movements like Syriza in Greece, which betrayed the people of that country and allied with their enemies.

Self-absorption, a kind of "me-ism", became the new zeitgeist in privileged Western societies and signalled the demise of great collective movements against war, social injustice, inequality, racism and sexism.

Today, the long sleep may be over. The young are stirring again. Gradually. The thousands in Britain who supported Jeremy Corbyn as Labour leader are part of this awakening—as are those who rallied to support Senator Bernie Sanders.

In Britain last week, Jeremy Corbyn's closest ally, his Shadow Treasurer John McDonnell, committed a Labour government to pay off the debts of piratical banks and, in effect, to continue so-called austerity.

In the US, Bernie Sanders has promised to support Clinton if or when she's nominated. He, too, has voted for America's use of violence against countries when he thinks it's "right". He says Obama has done "a great job".

In Australia there is a kind of mortuary politics in which tedious parliamentary games are played out in the media while refugees and Indigenous people are persecuted and inequality grows, along with the danger of war. The government of Malcolm Turnbull has just announced a so-called defence budget of A\$195 billion that is a drive to war. There was no debate. Silence.

What has happened to the great tradition of popular direct action, unfettered to parties? Where is the courage, imagination and commitment required to begin the long journey to a better, just and peaceful world? Where are the dissidents in art, film, the theatre, literature?

Where are those who will shatter the silence? Or do we wait until the first nuclear missile is fired?

About the Author:

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Editor's Note:

This is an edited version of an address by John Pilger on 22 March 2016 at the University of Sydney, entitled "A World War Has Begun: Break the Silence".

Mandatory Vaccinations and Microcephaly Outbreaks

The epidemic of microcephaly (babies born with shrunken heads) in Northeast Brazil in 2015-16 was not caused by the Zika virus. It occurred as a result of vaccinating pregnant women with the TDaP vaccine and ended after the vaccination program was stopped.

by Viera Scheibner, PhD

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The Failure of Mass Vaccination Programs

Major outbreaks of pertussis or whooping cough happening increasingly all over the world, and especially in countries with a high vaccine intake, sent pro-vaccinators into a panic by the 1990s.

Outbreaks of pertussis not only occurred in older children (especially schoolchildren) and adults, but in very young infants, straight after birth and before the vaccination age of six weeks to three months.

While such outbreaks started straight after the introduction of mass vaccination programs, the culture of "lies, damned lies and statistics" managed to cover up the most obvious for a long time, partly by redefining diseases or introducing new names for old diseases until quite recently. Then the ineffectiveness of vaccines just boiled over.

Mulholland (1995) studied measles and pertussis in developing countries with a good vaccination coverage. He wrote: "...However, the failure to eradicate measles and pertussis in such countries and the re-emergence of these diseases in young adults has shown that infant vaccination with existing vaccines does not always provide lifelong immunity to these diseases."

Diphtheria-pertussis-tetanus (DPT) and measles vaccinations have never prevented whooping cough and measles. In fact, all other vaccinations have never prevented all other so-called vaccine-preventable diseases. Outbreaks and epidemics have been occurring just days into mass vaccination programs and even during the original trials, such as the 1950s polio vaccine trials in the USA and later on in other countries.

Historically, the biggest outbreaks of smallpox were documented to have occurred in areas with the highest vaccination coverage. The smallpox epidemics stopped when vaccinations stopped, as shown by the example of Leicester, UK, whose citizens boycotted vaccinations (Scheibner, 2012).

Hutchins et al. (1988) documented a threefold increase in pertussis incidence in babies below the age of six months in the USA during the mid-1970s, when individual states gradually mandated vaccinations.

Poliomyelitis outbreaks days into mass vaccination programs are well described by Scheibner (2013).

Transplacentally Transmitted Immunity

Transplacentally transmitted immunity (TTI) is a natural, temporary, passive immunity which protects newborn babies for several months or even up to two years against any infectious diseases to which their mothers acquired natural immunity by exposure to such diseases.

A great number of researchers looked into the dynamics of this maternal TTI right from the beginning of mass vaccinations, especially in relation to pertussis and measles.

Lennon and Black (1986) demonstrated that haemagglutinin-inhibiting and neutralising antibody titres are lower in younger women who were vaccinated as children than they are in older women who developed natural immunity by exposure to naturally occurring infectious diseases.

The same applies to all other so-called vaccine-preventable diseases. This explains why so many newborn babies born to mothers vaccinated as children are getting whooping cough.

Mulholland (1995) continued by pointing out: "...During the past decade, vaccination against measles and pertussis has been highly successful in many developing nations. [By "successful", he means the high vaccination compliance.] Fifteen such nations currently have measles coverage rates of over 95%. In the Gambia, diphtheria-pertussis-tetanus (DPT) vaccine has been scheduled at 2, 3, and 4 months, and measles vaccine at 9 months, for over 12 years.

"However, in late 1992, in an outbreak that lasted about 9 months, measles re-emerged as an important cause of morbidity and mortality."

Mulholland blamed the high titre of maternal antibody among the reasons, besides difficulties with vaccine storage and delivery, for this re-emergence.

However, outbreaks and epidemics of pertussis and measles have occurred in all countries with high vaccination compliance of even 100 per cent, and, needless to say, in the vaccinated. (For more details, see Scheibner, 2013.) DPT and measles vaccines, as with all other vaccines, have never prevented any targeted diseases.

The only effect of all and any vaccines is anaphylaxis or sensitisation, meaning increased susceptibility to the targeted diseases and also to related and unrelated bacterial and viral infections. Among the "new" infectious diseases are bacterial and viral meningitides, pneumonias, Haemophilus influenzae type B (Hib) and pneumococcal invasive infections as a direct consequence of immunosuppression caused by DPT vaccinations.

The Medical Journal of Australia published a short report on four infant deaths in New South Wales in 1996-1997 (Williams et al., 1998). These deaths were supposedly caused by whooping cough. A closer look at these deaths, as described in this article, reveals that the babies did not die from whooping cough. Nor did they contract pertussis from some unknown unvaccinated child, as reported by the media at the time. The article clearly stated that they died of overwhelming cardiac insufficiency.

All the babies were doing well until they were administered two antibiotics intravenously. This is very obvious, whether the authors of the article noticed it or not, because the individual babies were given intravenous antibiotics at different intervals after their admission to respective hospitals and started deteriorating from then onwards when the antibiotic administration began (Scheibner, 2008).

The above article also disclosed that the babies contracted pertussis from their fully vaccinated mothers and siblings who had suffered whooping cough at the time of their birth. The authors didn't mention that since the fully vaccinated mothers had no TTI, the babies were vulnerable to infection with pertussis.

Moreover, the two cephalosporin antibiotics given to these babies are known to result in overwhelming cardiac arrest (Shalviri et al., 2012).

Vaccine-Driven Resistance

The continuing and persistent epidemics of pertussis motivated researchers to study the phenotypic variations and other changes or adaptations of Bordetella pertussis, the Gram-negative bacterium that causes whooping cough.

Fry et al. (2001) noted: "Within the last decade, several countries have reported an increasing incidence of infection caused by Bordetella pertussis, despite high vaccination coverage [in other words, the cases occurred in the vaccinated]. One possible explanation for this resurgence, proposed by Mooi et al., is the expansion of strains of B. pertussis antigenically distinct from those in the vaccine." Scheibner (2015) reported on the vaccine-driven resistance of bacteria and viruses.

Needless to say, when some countries started using the acellular pertussis vaccine instead of the whole cell variety, the epidemics of whooping cough continued occurring in babies vaccinated with this vaccine.

Vaccination of Pregnant Women

The medical authorities in many countries, including Australia, started recommending DPT vaccination of grandparents and other family members with young babies, calling it "cocoon vaccination" (The Australian Immunisation Handbook, 2015). When that failed (Woodhead, 2015), they ultimately decided to recommend vaccination of pregnant women.

However, that was destined to fail as well because it was already known that many pregnant women who were given the influenza vaccine gave birth to dead babies and even died themselves.

I personally know of such tragic cases in Australia, and there are innumerable Internet reports of such tragedies happening all over the developed world. The validity of this example is supported by the fact that deleterious effects of vaccines are characteristic of but not specific to any one vaccine, subject to the principle of Selye's non-specific stress syndrome (Scheibner, 2004).

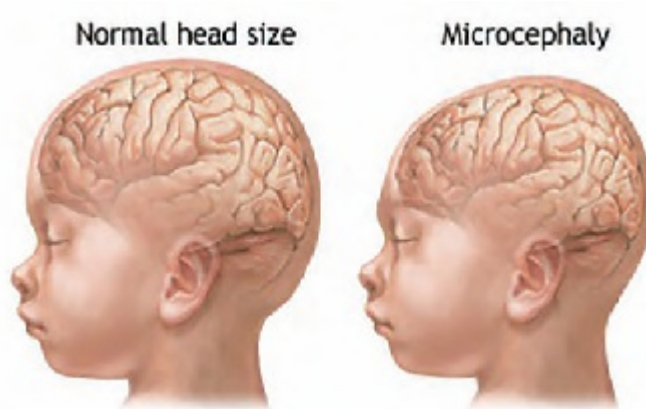
Instead of resolving the problem, vaccinating pregnant women backfired—as demonstrated by the recent events in Brazil (Adl, 2016).

Brazil's Microcephaly Outbreak

According to Marco Caceres (2016), in early October 2014 the representative of the Brazilian Ministry of Health's

Center for Epidemiological Surveillance (CVE) in Sao Paulo, Professor Alexandre Vranjac, announced the mandatory vaccination of pregnant women between the 27th and 36th weeks of pregnancy, starting in early December 2014 with tetanus, diphtheria and pertussis (TDaP) vaccine.

From early May 2015, a great number of babies were born with microcephaly (shrunken heads) and other malformations. Most of the cases occurred in Pernambuco, a state in the Northeast Region of Brazil, where most of the TDaP vaccines were distributed.



Normal head size compared with microcephaly head size. (Photo: Leememorial.org. Source: <http://tinyurl.com/gqsyb3u>)

Thousands of pregnant women have been vaccinated with GlaxoSmithKline (UK) vaccine with the brand name Refortrix®, more commonly known in Brazil as Boostrix®, licensed in Brazil for more than a decade, and Adacel®, produced by Sanofi Pasteur (France).

According to the product information for Boostrix, a TDaP vaccine (GSK, 2016): "Animal fertility studies have not been conducted with BOOSTRIX. There are no adequate and well-controlled studies in pregnant women. Because animal reproduction studies are not always predictive of human response, BOOSTRIX should be given to a pregnant woman only if clearly needed."

The US Centers for Disease Control and Prevention (CDC, 2016) "...recommends pregnant women get the whooping cough vaccine [TDaP] between 27 and 36 weeks of each pregnancy. The goal is to give babies some short-term protection against whooping cough in early life. Getting the whooping cough vaccine while you are pregnant is very safe for you and your baby."

Not surprisingly, the CDC's assumption is obviously false.

In December 2015, the Brazilian government declared an emergency after some 2,400 Brazilian babies were born with microcephaly and damaged brains.

The World Health Organization (WHO) stepped in and came up with an assumption that the microcephaly epidemic was caused by the little-known Zika virus, discovered in 1947 in the Zika Forest of Uganda and allegedly spread by mosquitoes (*Aedes aegypti*) in the same way as the West Nile virus is. On 1 February 2016, the WHO declared that the Zika virus outbreak "constitutes a Public Health Emergency of International Concern" (WHO, 2016).

Discovery of the Zika Virus

The original discovery of the Zika virus was described by Dick, Kitchen and Haddock (1952). They reported on the isolation of filterable viruses from mosquitoes taken in Uganda, of which two well-known viruses had not previously been identified by isolation from mosquitoes in Uganda: the yellow fever virus and the Rift Valley fever virus.

A third one, Mengo encephalomyelitis virus, had been isolated on several occasions from *Aedes taeniorhynchus* spp. The fourth virus, Uganda S virus, remained unpublished. However, yet another virus was recovered from mosquitoes, which was encountered on two occasions separated by nine months and was named Zika virus after the Zika Forest.

It was subsequently tested on rhesus monkeys in April 1947. All monkeys inoculated intracerebrally showed signs of

sickness on the 10th day after inoculation. A filterable transmission agent was isolated from the brains of these sick monkeys. It was further tested on mice.

One of the monkeys, Rhesus 766, used in the experiments developed a temperature of 39 °C on 18 April 1947 and 40 °C on 19 April. A sample of blood was taken from Rhesus 766 on 20 April, the third day of the fever. The serum was injected intracerebrally (0.03 mL) and intraperitoneally (0.06 mL) into groups of mice and into another monkey, Rhesus 771, subcutaneously (0.75 mL). Rhesus 771, inoculated with the serum of Rhesus 766, showed no temperature elevation above the normal range and no other abnormalities during the observation period of 23 days.

The agent that was isolated from the Rhesus 766 serum was referred to as "Zika virus (766 strain)".

Neutralisation tests confirmed the entity of Zika virus.

As for the mice, a group of six was used in the experiments. All of the mice were 35 to 42 days old and the quantity of the intracerebral inoculum for all of the mice was 0.03 mL.

As the authors reported: "The mice which were inoculated intraperitoneally with the serum showed no abnormality during the observation period of 30 days. All of those inoculated intracerebrally showed signs of sickness on the 10th day after inoculation. A filterable transmissible agent was isolated from the brains of these sick mice."

Thereafter, the tests were performed with the filterable serum only. In other words, neither the monkeys nor the mice were exposed to the Zika virus by being bitten by the Zika-carrying mosquitoes.

The authors did not mention any cases of microcephaly in the babies of mothers living in or near the Zika Forest who inevitably would have been exposed to, and bitten by, the Zika virus-carrying mosquitoes.

Another Mass Vaccination Tragedy

In summary, the outbreak of microcephaly in Brazil was clearly caused by the documented administration of the TDaP vaccine to pregnant women, confirmed by the timing of the abrupt onset when the vaccination program was started and the equally abrupt end of the epidemic after the program was stopped.

Further confirmation is the lack of evidence of infestation of the Pernambuco area with Zika virus-carrying mosquitoes and the ability of the Zika virus to cause microcephaly, while vaccines of all kinds are known to do so. Vaccines' effects are characteristic of but not specific to any one vaccine, i.e., all kinds of vaccines can cause microcephaly but the health authorities keep quiet about how widespread this adverse effect is.

The latest development is that some doctors in Brazil and elsewhere are calling for the August 2016 Olympic Games to be transferred or halted, which puts the WHO in a difficult position and entangled in a quandary of its own doing. The WHO representatives are declaring that there is no imminent Zika virus danger to the participants and visitors (Coombes, 2016).

About the Author:

Viera Scheibner, PhD, is a retired principal research scientist who lives in Australia. She is the author of *Vaccination: 100 Years of Orthodox Research Shows that Vaccines Represent a Medical Assault on the System* (1993; reviewed in NEXUS 2/16), and *Behavioural Problems in Childhood: The Link to Vaccination* (2000; see 7/05). Her most recent NEXUS articles "Bursting the Bubble of Antibiotics" and "Little-Known Facts about Poliomyelitis Vaccinations" were published in 18/05 and 16/06 respectively. Dr Scheibner has had over 250 shorter items published in medical and other journals. She can be contacted by email at viera.scheibner@gmail.com.

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Castor Oil in Folk Medicine and Edgar Cayce's Readings

Already well known for its industrial applications, castor oil has an ancient history of usage and is part of folk medicine. It was often suggested by "sleeping prophet" Edgar Cayce as a therapy for a wide range of illnesses.

by **William A. McGarey, MD**
(1919-2008)

Extracted and edited from Edgar Cayce and the Palma Christi

Edgar Cayce Foundation © 1970

Web page: <http://tinyurl.com/zb7sb7y>

Therapeutic History of Castor Oil

At first, in one's consideration of castor oil as a therapy, an almost universal inclination would be to dismiss it as an old-fashioned cathartic whose use in the armamentarium of medicine has been long outdated.

This is certainly understandable, since it is what we are given to believe in the short space of time allotted to it in medical school pharmacology. It is true that some physicians still recommend it, over the verbal protestations of the apprehensive patient; and more often a radiologist is found who prefers it over other types of evacuant therapy for preparation prior to X-rays of the bowel.

Yet, on investigation, it is found that castor oil is truly a remarkable substance with a similarly remarkable history, and considered philosophically it just doesn't make sense that a remarkable substance that has history, utility, versatility, flavour and romance all working in its favour should end up in the bottom of the therapeutic barrel, so to speak. On the contrary, these qualities should make it a potential therapeutic boon.

In seeking the history of this oil of the castor bean, it is seen that there are records of qualities inherent in it that have made it of value. These references are infrequent, to be sure, but they need to be investigated and explored. Not too much has been written in the medical literature. Other areas of written information perhaps add more. The stories one hears are even more sparse, although they exist. Nearly 15,000 psychic readings, the life work of one man, Edgar Cayce [1877-1945] of Virginia Beach, Virginia, USA, represent the largest body of information from which a mass of written material to do with castor oil as therapy may be extracted and studied. This makes up the bulk of this investigation, when added to my own experience.

The oil, of course, is that which is extracted from the seed of the *Ricinus communis*,¹ known also as the Palma Christi or more commonly as the castor oil plant. This is the oil which Edgar Cayce recommended for use so very, very frequently in the form of a pack.

Probably Cleopatra used castor oil as a base for her make-up or to make her eyes even more lovely, just as this particular oil is found commonly in lipstick and make-up today, presumably because of its stable and soothing characteristics. In the Ebers Papyrus (c. 1550 BC), castor oil was described as being used as eye drops to protect the eyes from irritation.² So it is that we see perhaps the beginning of the recorded use of this unusual oil as a therapy in ancient Egypt, a land shrouded in many mysteries. Over the centuries, the value of castor oil continued to be recognised, sometimes in new ways—but the real nature of castor oil's action, as described in the Cayce readings, remained unrecognised.

An exhaustive search of medical literature going back 49 years produced only a few, but some very fascinating, references. Douglas W. Montgomery, MD, wrote in 1918 of the oil which he described as coming from a beautiful plant with large palmate leaves, often called Palma Christi, the palm of Christ.³

Somewhat facetiously, I suspect, he noted: "If as a child I had known this sonorous name, it might have mitigated the misery I often suffered in having to take the oil. A very determined and energetic Scotch auntie regarded 'a crumb o' oil', as she used to call it, as a universal remedy of exceeding potency in both moral and physical contingencies; and indeed, there is no doubt of its efficiency as a cleaner."

Montgomery reported in the same paper an observation which is undoubtedly of interest and importance today to physicians, as well as being an item which correlates very probably with some of the commentaries made in the Cayce readings about the use of castor oil.

He observed that in diseases of the skin, the use of castor oil is of importance in as much as a clean alimentary canal is conducive to a clean cutaneous surface. "It would appear that the medicine acts particularly on the ascending colon, and this is interesting, as it is undoubtedly a fact that many of the more active skin reactions are caused by poisons generated in the caput coli, a favorable location for the anaerobic proteolytic bacteria."

He further pointed out that in the work that Walter B. Cannon, MD,⁴ reported on, in which castor oil was given to an animal with its food, there was a serial sectioning of the food in the ascending colon followed each time by antiperistalsis which swept the food back—a type of action well fitted to clearing out the haustra of the colon, "those pockets which in colonic sluggishness must tend to become especially dirty".

This points up how important findings are often disregarded, even in the most astute of our accepted textbooks. For here is seen evidence of ascending colon activity directly as the result of the castor oil taken internally. Louis Goodman, MD, and Alfred Gilman, PhD,⁵ explained how the oil is hydrolysed by the fat-splitting enzymes in the small intestine into glycerol and ricinoleic acid. It is the latter substance which is active in producing catharsis through its marked irritant activity in stimulating the (parasympathetic) motor activity of the intestines to promote rapid propulsion of the contents of the small intestine. Then the text states that "the colon is stimulated little, for in passage through the small intestine the ricinoleic acid is absorbed just as are other fatty acids".

Perhaps the activity which Cannon reported on is a reflex type of phenomenon called irradiation. In such event, it would be understandable how the castor oil would act as a stimulant to the entire small intestine and the ascending half of the transverse colon through the spread of impulses resulting from the irritant activity.

In the autonomic system, irradiation is a much more pronounced phenomenon than in the central nervous system.⁶ Indeed, as regards the sympathetic system, the effect of an afferent impulse is to set the whole sympathetic system into activity, and its structure is well suited for such widespread responses. Hence, for example, if the central end of the splanchnic nerve is stimulated, the effects reach even to the pupil, which dilates. In the parasympathetic system, there is less irradiation than in the sympathetic, but it still is well marked.

Thus, the effect of the castor oil probably is seen in the colon before it proceeds even a small distance through the small bowel, through this phenomenon called irradiation, an activity here of the vegetative nervous system. It becomes obvious, then, that there are many functions which come about within the body which are more delicate and more mysterious than we, at our present stage of knowledge, understand.

A very interesting correlation develops here between that information which Montgomery commented upon and a report made to the Southern Medical Association in 1937 by Arthur G. Schoch, MD.⁷ This study reported 10 cases of severe skin eruption treated with castor oil or sodium ricinoleate internally. Some rather dramatic responses were noted after the administration of often just a single dose of castor oil.

Discussion of this method of treatment revealed that another dermatologist had found that where the colon had become too alkaline—from a pH of 7.6 to 8.2—the Gram-positive organisms were in a ratio of about one to every 30 to 80 Gram-negative organisms. These people, whose large bowel had become thus disturbed, most often did not respond to diets which eliminated protein-residue foods unless these were accompanied by the use of castor oil.

Castor Oil Cases and Properties

Two cases illustrate the results with this therapy.

- **Case 1:** Miss C., a white woman aged 30 years and a graduate nurse, presented herself with bath pruritus of four years' standing. Over a period of six months, she failed to improve under generalised ultraviolet light, intravenous calcium gluconate and sodium iodide, elimination diets, autohaemotherapy and local therapy. She had not risked a tub or shower bath in seven months. In desperation she was placed on kaolin and sodium ricinoleate by mouth, one half-ounce three times daily. Four days later, she reported that she was well, had bought a dollar's worth of soap and was taking four baths a day. Six months later, there was a recurrence which again responded to kaolin and sodium ricinoleate. There has been no recurrence in two-and-a-half years.

- **Case 2:** Mr D., a white man aged 72 years, presented himself with a nonexudative urticarial dermatitis involving the back, arms and legs. The eruption was of two weeks' duration. A single dose of castor oil, all other therapy excluded, relieved the pruritus in 24 hours. One week later, he was well. A recurrence three months later responded in the same manner.

In the field of pharmacology, oil from the Palma Christi is recognised by Goodman and Gilman (p. 801) but with few benefits to its credit. They describe castor oil as a triglyceride composed mostly of ricinoleic acid, an unsaturated hydroxy fatty acid. The oil is a bland emollient and is employed locally on the skin for its soothing properties. Castor oil is also incorporated with alcohol and used extensively as a hair tonic, in the proportions of one part of oil to 10 of alcohol. This textbook, familiar to all medical students, also describes castor oil as one of the few substances which effectively removes phenol from the skin or mucosae.

Oliver Ormsby, MD, and Hamilton Montgomery, MD,⁸ describe castor oil as one of the "nutritive and soothing oils" which may be used by direct application or through saturated compresses to the skin.

These are frequently used for the removal of crusts and scales.

Interestingly, the other "nutritive and soothing" oils which the authors list are cod liver, olive, almond, linseed and

neatsfoot, while the "stimulating" oils are those of tar, cade, white birch, cashew nut and juniper.

Castor Oil in Industry

In searching for information about castor oil, I learned much from a publication entitled "Castor Oil and Chemical Derivatives"⁹, which is more specific in the chemical description of castor oil than Goodman and Gilman.

Chemically, castor oil is a triglyceride (ester) of fatty acids. It is unique in that approximately 90 per cent of this fatty acid content is ricinoleic acid, an 18-carbon acid having a double bond in the 9-10 position and an hydroxyl group on the 12th carbon. This relationship of hydroxyl group and unsaturation exists only in castor oil. The typical composition of castor oil fatty acids is shown in the following table. This composition is remarkably constant.

Ricinoleic acid	89.5%
Dihydroxystearic acid	0.7%
Palmitic acid	1.0%
Stearic acid	1.0%
Oleic acid	3.0%
Linoleic acid	4.2%
Linolenic acid	0.3%
Eicosanoic acid	0.3%

The hydroxyl groups in castor oil account for a unique combination of physical properties: relatively high viscosity and specific gravity, solubility in absolute alcohol in any proportions, and limited solubility in aliphatic petroleum solvents. The uniformity and reliability of its physical properties are demonstrated by the long-time use of castor oil as an absolute standard for viscosity tests. It has excellent emollient and lubricating properties.

The history of this substance in industry is in itself a long and fascinating story, too long to tell here.

Briefly, however, it can be stated that because of the hydroxyl groups, double bonds and ester linkages, which provide reaction sites, a number of chemical reactions in which castor oil is commercially used have been most thoroughly explored.

These include acetylation, alkoxylation, amination, caustic fusion, chemical dehydration, distillation, epoxidation, esterification, hydrogenation, oxidative polymerisation, pyrolysis and saponification. These reactions result in a multitude of oils, salts, glycerides, esters, amides, alcohols, halogens and hydroxystearates.

This remarkable history in industry speaks highly of castor oil's stability, versatility, dependability and general utility. One might be led to wonder if such characteristics might carry over into its use when applied to the human body, which is so deeply concerned with chemical reactions of all sorts.

Among the contributions of industry as it relates to the fields of medical inquiry and therapeutics is the work of Arthur F. Novak, PhD, et al.^{10, 11} in using ricinoleic and oleic acid derivatives, both found in castor oil. These were screened for their antimicrobial activity, under optimum growing conditions, against several species of bacteria, yeasts and moulds.

Several of the derivatives exhibited considerable inhibitory activity, comparable to sorbic and 10-undecenoic acid, known antimicrobial agents. Novak and his group stated that these substances warranted further study, since "the medicinal applications of some of these compounds might prove to be very important".

Industry played a large role in the work reported by Louis Schwartz, MD,¹² in 1942 concerning the use of castor oil—among other constituents—in the make-up of protective ointments and cleansers. These were to be used where men in industry would be subjected to exposure of irritating substances on the skin. His was an extensive report on the subject, and castor oil was found commonly in recommended ointments and cleansers.

Castor Oil in Folk Medicine

Many of those habit patterns which we call our way of life come to us through the medium of teaching, person to person, verbally.

Throughout the history of mankind on the Earth, I am sure, much information in treating and caring for the body has been passed on through word of mouth and through that which has been called the unconscious mind, active in one form or another.

Castor oil as a treatment for the body certainly has been a factor in the habit patterns of peoples throughout the past several thousand years, so it would not be surprising to find it in the legends and stories of peoples and in so-called folk medicine, wherever such exists in the world today. It would be interesting to delve into the herbal medicine of ancient China and Tibet and the stories of healing as they exist in various lands throughout the world to find if castor oil is a part of the therapeutic history of those countries.

From personal communications I find two stories which are of interest in the folk history of castor oil. After I had suggested some castor oil applications in her instance, Mrs Carrie Hulsman told me in September 1965 that her old family doctor in Shelbyville, Indiana, always told her that "castor oil will leave the body in better condition than it found it".

The second story originates in Virginia. E. J. McCready told me in May 1965 of his visit some years ago to a Virginia mountain town where his sister lived, and he had developed an intensely inflamed finger. A local physician advised him to go to a larger city to receive surgical care for it. He was about to leave immediately, because the finger hurt him so much, when his sister influenced him to show the finger to "Aunt Minnie" who lived up in the hills and who was a midwife. As soon as she saw it, she told him to wrap a flannel cloth soaked in castor oil around the finger and leave it there. He followed her advice and direction, and by morning most of the inflammation and all of the soreness had gone. By the morning of the second day, all the swelling and inflammation had gone, and a grain of sand (acquired while he was bathing on the seashore one week earlier) was discovered under the edge of the fingernail. This came out and the finger was healed.

D. C. Jarvis, MD, in his book *Folk Medicine*³, listed many topical uses for castor oil. Among the more interesting are: for warts anywhere on the body; for any type of body ulcer; to heal the slow-to-heal umbilicus of a newborn infant; applied locally to breasts to increase flow of milk; for irritation of the conjunctiva of the eye; for lack of proper growth of hair in little children; applied to eyelashes or eyebrows to stimulate growth. For hunting dogs when they develop irritation of the eyes from running through the grass, a few drops of castor oil will clear up the condition.

Jarvis stated that aching feet can be made to feel much better if twice a week, or even more often, the feet are rubbed down at bedtime with castor oil. Then cotton socks should be slipped on and the oil left on overnight. In the morning, the skin is like velvet, and generally all the tired, sore feeling will have disappeared. In the same way, castor oil can be used night and morning to soften corns and calluses and remove the soreness.

Jarvis drew on the reservoirs of folk medicine in Vermont for these varied uses of castor oil.

He further described how he utilised a fascinating degree of common sense in pursuing these ideas, particularly as they applied to warts, and found in his own experience that castor oil would and did clear up not only warts but also those skin afflictions that are known as papillomas of the skin, pigmented moles and the more common "liver spots".

The latter occurrence is a concomitant of the ageing process, which, of course, we speak of so lightly and fluently but as yet do not really understand. These spots, according to the author, were not just improved but actually were completely removed by some physiological process that left a clear skin in the procedure without a sign of a blemish. His own account of two of these cases is certainly interesting enough to recount here.

"While adjusting the eyeglasses of a patient sixty-two years old, I noticed that she had a papilloma 3 x 3 x 3 mm at the outer end of her left eyebrow. This had a smooth surface and appeared like a skin-colored miniature grape. I asked how long it had been there, and she said three months. I suggested that at each mealtime she apply castor oil to the papilloma and let me know the result. At the end of six weeks it had disappeared to the degree that I would have never known it had been there."

"A young married woman thirty years of age came to Vermont with her three children to spend the summer with her father, who had retired and returned to Vermont to live. While seeing her father I observed that she had a brown mole, in the middle of her right cheek, about the size of her little fingernail. It was so brown that it showed through her makeup. I told her I thought castor oil might influence the mole favorably, if she cared to try it. Telling me that it had been there ever since she could remember, she accepted my suggestion. Each evening when she removed her makeup she thoroughly rubbed in the castor oil, wiping off the excess with a tissue as she was about to get into bed. At the end of one week she noticed that the color of the mole had begun to fade. By the end of three weeks the brown had completely disappeared. I could see a smooth place where the mole had been, but its color was that of the surrounding skin."

Use of castor oil therapy here in Phoenix (personal oral communications with Palmar Dysart, MD, April 1966) has been advocated for a wart that was too large to remove with electrocoagulation without scarring. A young married man was instructed by his family doctor to apply a cloth soaked in castor oil to this wart on his right hand, taping the bandage in place and leaving it on all night. After this had been done for one week, the wart had completely disappeared. The patient later, without his physician's knowledge, instructed his wife in treating a similar wart on her knee, which also disappeared with rapidity.

Folk medicine is not the usual area of information to draw from in medical literature and writing because it does not have the sanction of the scientific method and consequently lacks that work which has become known as scientific investigation and research. When these methods are applied to folk medicine and an item in the repertoire of that storehouse of information is found to be applicable in controlled circumstances, then this item is no longer a therapy found in folk medicine but is an accredited portion of the science of medicine.

Witness the amazing story of the ornamental periwinkle and the saga of the Hindu snakeroot—used for centuries in

India for maladies of the mind, but now a respected portion of the medical practitioner's art. The periwinkle plant is called, technically, the *Vinca rosea* L. and comes from the dogbane family which is rich in alkaloids. While it had been used in folk medicine for dysentery, menstrual disorders, toothache, etc., it was only through a strange coincidence that it was found to be usable in leukaemia.

Investigators in the Collip Medical Research Laboratory in London, Ontario, were using extracts in animal research, trying to run down the facts on a story that it had been used in Jamaica for diabetes. When some animals died of an overwhelming infection while under treatment with the *Vinca*, it was found that the white cells were depressed and the idea was born that it could be used in leukaemia.

Author Margaret B. Kreig, in the foreword of her book *Green Medicine*⁴, best gives the story of the Hindu snakeroot: "One botanical success story had especially far-reaching consequences: in the early 1950s, western scientists began to examine the claims made for the ancient Hindu snakeroot, *Rauwolfia serpentina*, in the treatment of insanity. After the first modern tranquilizer, reserpine, was extracted from these roots, it was found particularly effective in easing high blood pressure."

Research is taking giant strides in testing those plants which have already been found to be beneficial, and in seeking out new drugs from old plants that have no available history of having been used in therapy.

Thus we see that one might well draw information from any source that seems reasonable in approaching a concept of what might well benefit the human body. When a therapy has been used for many years without ill effect, then it is time to take that therapy and find out no longer if it works but instead why it works and what perhaps happens in the body when it does its job.

Castor Oil Packs as Therapy

The history of castor oil and its many uses has certainly expanded our concepts relative to the usage of castor oil from that of an ancient protective oil—which is in the present day commonly used as a cathartic and as a chemical (or psychic) encouragement towards the beginning of labour in the pregnant woman—to that of a versatile therapeutic tool whose capabilities are only beginning to be known and whose methods of action are completely unexplored.

Yet, nowhere in the medical or paramedical literature have I been able to find a description of castor oil's use in a pack on the abdomen in the treatment of human illness, with but two exceptions.

The first of these is a story told to me by Catherine Young (personal oral communication, February 1966). During the course of my suggesting to her the use of a castor oil pack, she stated that this was exactly what her mother had used on her many years ago. Her mother came to the USA from Yugoslavia in 1901. She told her daughter that they had used these packs for stomach and kidney troubles on people of every age "back in the old country", and especially for babies who were suffering from colic. She remembered how, at various times, people would walk around with castor oil packs on their abdomens with a hot water bottle tied in place. In Yugoslavia and subsequently in their home in the United States, they used the packs on stiff necks, sore throats and various aching parts of the body—but mostly on the abdomen.

The second exception is found in the records existing in the Edgar Cayce Foundation in which castor oil packs are discussed at length and are suggested for a variety of illnesses of the body. This Foundation is chartered in Virginia, and its primary function is the care of the 14,238 psychic readings given by Edgar Cayce over a period of approximately 40 years. The Foundation is active in indexing and making these readings available for study, and is sponsoring research of a parapsychological and medical nature. These readings constitute the largest body of psychic information from a single source available in the world today. From such a rich source of information that is coherent and related, one would expect to find a consistency of use and perhaps some understanding as to why castor oil packs were used at all.

Before understanding the nature of the packs, we should understand what are the Edgar Cayce readings which advocated so widely the use of these packs. Much of Cayce's life was spent in giving these "readings", as they came to be called. The full story of his life is well told by Thomas Sugrue in *There is a River*.¹⁵

Cayce died in 1945, but while he lived he was able to lie down on a couch or bed, loosen his tie and collar, and after a few moments be in a state that resembled trance or selfhypnosis. In this state he was able, upon suggestion by the conductor, to visualise, describe and comment upon another individual who may have been thousands of miles away at the moment and a complete stranger. He was able to diagnose physical conditions which existed at that time in that person's body, and he gave suggestions which, when they were followed, restored the body to a more normal condition of health. His clairvoyance while in this condition was substantiated time and again, and Cayce subsequently became known nationally as "The Miracle Man of Virginia Beach".¹⁶

Each time he "went to sleep" and gave such information for an individual, this, with the questions and answers, became a reading. During his adult life, and over more than 40 years, Cayce gave 14,238 such readings, currently on file and being indexed, plus, it is estimated, 200 to 500 readings of which no copy is available. Of those on file,

there are 8,976 physical readings, the remainder having to do with various other subjects. All extracts from these readings are identified by number and can be located as such in the records of the Edgar Cayce Foundation.

Edgar Cayce's Castor Oil Readings

The first reading thus far indexed in which castor oil packs were suggested is Case No. 15-2. A woman applied for a reading because of a tumour of the upper bowel—diagnosed by X-ray as cancer, but stated in the reading to be an impaction. This reading took place on 17 August 1927. Thus originated a type of therapy which was continued throughout the lifespan of this psychic individual who, without medical training or a degree, found himself in the position of diagnosing illnesses and giving suggestions for therapy without even seeing or knowing anything about the patient.

A 62-year-old man, who became Case No. 1836, suffered apparently from epilepsy. His reading of 2 March 1939 is interesting for a number of reasons and is quoted here.

"As we find, unless there are measures taken, the conditions here may become very serious. These are the conditions as we find them with this body. There having been a disturbance in the lacteal ducts, there has been a disturbance that causes an adhesion in this portion of the body; and at times a drawing in the side (right) just below the liver and gall duct area. This disassociation causes a breakage in the coordinating of the cerebrospinal and sympathetic nervous system, until there are the tendencies and impulses for an overflow of the nerve impulse through the cerebrospinal system. And these, unless some measures are taken, may form a clot or a break on the brain. As to the general conditions of the body, these are gradually giving away to these disturbances, both from the physical reaction and from the anxiety in the self as well as those about the body...

"We would apply, consistently, for at least 10 such applications, the Castor Oil Packs, about every other evening, when the body is ready to retire, for an hour, the Packs changed about twice during the hour period. These would be applied over the caecum and the gall duct area, or the right side from the ribs to the point of the hip, extending lower over the abdomen in that area, see? Use about three thicknesses of flannel, wrung out of the hot Castor Oil and applied, then a pad put over same, and then the electric pad or dry heat put over same to keep it warm or as hot as the body can stand it, see? Do this every other evening for at least ten such applications, making a period of twenty days, see?

"Also, each evening, for at least twenty to thirty days, we would massage the spine, downward, beginning at the base of the brain; one day using Olive Oil, the next day using Cocoa Butter. Massage all the body will absorb. Let this extend on either side of the spinal column, from the base of the brain to the end of the spine; gently, in a rotary motion, massage into the body, see? Rub away from the head, always. Take about twenty to thirty minutes each evening to give this massage, see? After the massage, as also after the Castor Oil Packs, the body may be sponged off—the areas of the massage and the Packs—with lukewarm soda water if desired.

"In the diet, keep away from fried foods and from any hog meat of any kind, especially sausage or the like.

"Do these and as we find we may aid in eliminating these disturbances. Then, at the end of the twenty to thirty days of following these directions, we would give further instructions..."

In perhaps the majority of the cases where castor oil packs were suggested for use on the abdomen, the three-day period of each week as described above was most frequently given. It was almost as if a period of activity in treatment needed to be followed by a rest period. Indeed, in his readings throughout the course of his life, Cayce seemed to see and sense a benefit to be derived from periodicity in the use of therapy, rather than continuing indefinitely with it for the rest of one's life. This was not, I am sure, an ironclad rule but, in my review of a portion of the records which are available, this would seem to be the case with a great deal of consistency.

About the Author:

William A. McGarey, MD, (1919-2008) was a family physician, holistic medicine pioneer and the author or co-author of a dozen books on spirituality and healing including *The Edgar Cayce Remedies* (1983), *Edgar Cayce on Healing Foods* (1989) and *The Oil That Heals* (1994; an extended and revised edition of *Edgar Cayce and the Palma Christi*). He graduated from the University of Cincinnati College of Medicine, and served in the US Navy in World War II and in the US Air Force as a flight surgeon during the Korean War.

In 1970 he co-founded the A.R.E. (Association for Research and Enlightenment) Clinic in Phoenix, Arizona, and in 1978 co-founded the American Holistic Medical Association. For decades he advanced Edgar Cayce's holistic healing principles through his private consulting as well as his writing including his columns in the A.R.E.'s *Venture Inward* magazine.

For related information on Edgar Cayce and his readings, visit the website:

<http://www.edgarcayce.org>.

Editor's Note:

This article is extracted and edited from Dr William A. McGarey's 1970 book *Edgar Cayce and the Palma Christi*, available as a pdf at:

<http://tinyurl.com/zb7sb7y>

For more information about castor oil packs, go to Edgar Cayce's A.R.E. web page:

<http://tinyurl.com/2e3way6>

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Silver Iontophoresis

Replacing Antibiotics and Antivirals

Silver has a long history of use as an antimicrobial. Now, an internal infection can be targeted via a silver-nylon conductive cloth placed on the skin and charged positive via a stimulator device, resulting in the flow of an ultra-low direct current of silver ions into the infection.

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The Global Antibiotics Crisis

There is ever-increasing buzz, scare and probably not small financially motivated scaremongering about the end of the antibiotics era and the growing resistance of superbugs to even the last-line antibiotic armamentarium.

At the same time, the Internet is replete with information about the effective and long-known antimicrobial properties of silver metal and silver ions against many different types of pathological (disease-causing) infections, including those caused by superbugs. Available sources are both the numerous alternative medicine pages and the now very many mainstream peer-reviewed medical articles on the same subject.

Drawing on long and hard clinical and electromedical experience and the cases of many confirmed, successfully treated, difficult infections either in place of antibiotics or after antibiotics had failed, this article outlines and explains the complete silver ion electromedicine delivery system recently developed in Australia and now readily and generally available. This independently developed medical equipment can immediately and realistically solve the world's antibiotics crisis, in a high percentage across all cases, probably for the next 50 to 100 years at least.

A Brief, Selected History of Silver in Medicine

It has been known for centuries that silver has significant antimicrobial properties. Silver wire was commonly put into wounds to stop infection. Modern pharmaceutical antibiotics are described as either broad or narrow spectrum, meaning that they are effective against many different types or against only a limited range of potentially disease-causing bacteria.

The silver ion (an atom of silver with an electron knocked off electrochemically thereby retaining a positive electrical charge) is known in modern terms to be an extremely broad spectrum antimicrobial agent. It has been shown to deactivate virtually every type of bacteria, even the superbugs. Additionally, the silver ion is effective against viruses, for which there are very few and often no effective drugs at all.

In the 1970s, a pioneering American orthopaedic surgeon, Robert O. Becker, MD—chief author of the seminal book *The Body Electric* (1985)—used an electrically positive electrode consisting of pure silver wire, implanted into an infected bone, to drive silver ions about a centimetre's distance into the infected bone tissue. It worked and the leg was saved.

This is essentially what colloidal silver generators do: release silver ions via the same electrochemical oxidation process from a silver wire electrode immersed in a container of pure water, thus making an ionic "colloidal" silver solution.

Becker wanted to be able to treat larger infected areas of the body beyond the physical scope of a silver wire. His research team hit on the use of a silver-nylon conductive cloth, newly manufactured for NASA for nonmedical usage.

When an appropriately scaled voltage was applied to the silver-nylon cloth, polarising it electrically positive, the cloth acted as a flat-surface, pure silver electrode that released silver ions from its surface, just as happened with the pure silver wire electrode. Becker used this electrified silver-nylon cloth electrode system to treat many infected surface wounds, achieving very remarkable, successful results even in cases that had failed to respond to multiple antibiotic drugs.

Becker's core work had not been developed further since his discoveries and innovations in the 1970s. The Internet

is scattered with references to it and there are still some active discussion forums, but his work was basically left for dead. Instead, any derivative focus has been on making fabric wound dressings impregnated with silver, now widely available but limited in scope.

The Problem of Medicine Delivery

As an orthopaedist, Becker was working with infected bones via implanted silver wire electrodes, and later with surface injuries. Is it possible to extrapolate from what he did and treat internal tissue infections in organs, glands and other localised anatomical structures deep within the body?

Across the medical condition spectrum, the *Helicobacter pylori* bacterium can cause stomach inflammation, ulcers and eventually gastric cancer; intractable infections around surgically implanted prosthetics are in most cases an "unconquerable" medical challenge; and the human papilloma virus (HPV) has at least 30 "high risk" subtypes and is strongly associated with cervical cancer. These disease-causing infections would be major targets for noninvasive, effective, silver ion medicine.

Colloidal silver (ionic silver solution), though certainly very useful for surface infections, has major limitations for internal infections, especially critical ones. The human body is often imagined as something like an homogeneous bathtub: if you drop a substance into it, it will undoubtedly spread and go everywhere. Not so.

The body is extremely compartmentalised and barriered at every order of scale. For this reason, some indeterminate percentage of successful infection treatments by standard antibiotics have other explanations. In reality, the drug has not reached the infection in therapeutic dose if at all, or is just not effective against the disease-causing microbe.

These instances are probably the result of strong antibiotic-meme placebo effects or are simply coincidental with the immune system's innate capability of dealing effectively with the symptomatic infection on its own considerable merits.

Additionally, for orally ingested silver ions there are a million million molecular binding sites available for them, starting high up in the gastrointestinal (GI) tract itself. The chances of getting any kind of therapeutic dose of silver ions to an acute and severe kidney infection, for example—after routing via the entire GI tract, then up through the portal venous system to the liver, then into the bloodstream, then around the body, eventually to and into the inner compartments of the infected kidney and somehow bypassing along the way the countless possible molecular binding sites—are very slim indeed.

There is also the real-world and underconsidered issue of localised elevated thromboxanes—fatty substances that are part of inflammatory processes and that cause blood clotting and blood vessel restriction. Thromboxanes are often elevated in infected areas of the body due to the activities of the infecting microorganism(s) and other coincidental tissue microenvironment problems.

In almost all such instances, these occurrences cannot be felt or distinguished subjectively by the person with the infection. The presence of these thromboxanes means that a reduced amount of medicine or no medicine at all (either natural or pharmaceutical) can reach the infected area of the body via the bloodstream.

The clinical experiences and knowledge of these medicine delivery problems, from which this article is informed, prompted the extensive research and development of the equipment that could provide the comprehensive solution to these obstacles, as outlined in the remainder of this article.

Iontophoresis: Direct Targeting Internally

Under the influence of an electric field—just as is generated between the ends of a battery—ions having a positive electrical charge can be moved through the skin into the body.

For infectious diseases medicine, iontophoresis means being able to target directly and reach an internal body infection with a therapeutic substance (medicine) noninvasively and without any reliance on the GI tract or vascular system to transport the medicine to the affected area.

Iontophoresis is neither new nor rare. It is sometimes called electromotive drug administration or transdermal drug delivery. For example, it is often used to deliver a steroid drug in an attempt to dampen inflammation in an injured bone joint. However, these applications are for short-duration medication applications of around half an hour or less, and use milliamperic electric currents applied to surface electrodes comprising a compartment containing a liquid solution of the drug to be delivered.

However, to treat an infection deep in the body, sustained and continuous silver ion delivery over hours and days can be necessary, and milliamperic strength currents applied for longer periods would cause skin burns and tissue damage. A very low voltage, very low electric current iontophoresis system is therefore a medical necessity. The

obstacle to the possibility of such deep tissue infection treatments with very low current silver iontophoresis is the skin.

The Skin Barrier's Electric-Voltage-Sensitive Tunnels

Skin is made up of three major layers. The outermost surface of the top layer, the epidermis, is the stratum corneum (SC). The SC comprises mostly keratinocytes— cells that provide the impermeable protective barrier of the organism to its external environment.

It also presents the main corpus of electrical resistance to any flow of electric current. The SC is made of up to 100 sandwiched sublayers and can have a standard, easily measurable electrical resistance value (denoted by "R") along it of up to 20-30 megaohms (MQ).

To put this relatively high R value into perspective, using the Ohm's law equation for a simple conductor, $V = IR$, where "V" denotes the voltage and "I" is the current flowing in the circuit, to deliver a very small 10-microampere current through the skin with an R value of 20 MQ would take 200 volts, close to the voltage of our domestic power supply—far too high for the recipient to tolerate!

Generally, the increased permeability of cellular structures to an applied electric voltage is known as electroporation—literally, electrically created holes.

Fortunately, Nature has provided electrically permeable crossings of the SC via several skin appendages. Of primary importance to this discussion are the sweat gland appendages of the skin. The sweat glands, crossing the SC and deeper skin layers, have very interesting and medically important electroporation properties.

Sweat glands are like long cylindrical tubes or tunnels, with relatively defined physical diameters and lengths. They are covered on the inside by a double-layered epithelial cell liner. Epithelial cells, with very few exceptions, line the entire body's internal cavities, such as the throat, blood vessels and glands, at all scales. They have been called the safety shields of the body's structures.

Epithelial cells, like all cells, have membranes that when lined up in rows have combined properties of electrical conductivity that can result in the movement of an electric current in the direction parallel to their physical positions. The sweat glands, with their conductive epithelial liners, are overall physically and electrically aligned in such a way that an externally applied electric voltage can potentially create an electric current that flows down and through them.

While an electric field can be induced along the sweat gland's epithelial cell liner, there is also a leakage (i.e., a loss) of the conductivity of that liner, equally due to its aggregate and basic electrical properties of capacitance and resistance. The special and medically very important characteristic of this overall electroporation phenomenon is that the conductivity leakage profile of the sweat glands varies widely depending on the strength of the externally applied electric voltage.

These physical and electrical properties of the sweat gland tunnels, in total, allow for their carrying of an electric current at both relatively high and very low externally applied voltages. Critically, for extended silver iontophoresis, at low voltages, their relatively fixed physical and dynamic electrical properties suddenly create new pathways for electric currents to cross the skin.

In the lowest voltage domain of up to and around 1.0 volt (V), if the skin had no sweat glands then the conductivity across the outer layers of the skin would be far too small for an electric current to flow. However, with skin being full of sweat glands, with an externally applied 1.0 V a sufficient voltage drop is created along the length of the sweat gland tunnel's voltage-dependent conductive liner to move a small electric current across the skin layers and deeper into the body. Due presumably to coincidental evolutionary influences, this fact just happens to be of great medical importance.

The significance of these phenomena for medical iontophoresis at very low applied voltages of no more than 1.0-2.0 V (which would surprise an electronics engineer not familiar with bioelectrics) is this: a measured resistance of anywhere up to 30 MQ value across a few centimetres of normal dry skin, when directly contacted and covered with a pure silver-nylon cloth electrode dampened with a little tap water (not conductive medical gel) to help conductivity, will decrease instantly to as low as 5.0 kiloohms (kQ)—a difference in the order of 10,000 times smaller electrical resistance to the pathway of induced electric current. This fact means that low voltage, very low direct current iontophoresis can be achieved.

Ultra-Low Constant Microcurrent

In electronics you can basically have either a constant voltage source or a constant current output device. Silver iontophoresis is best achieved with a constant current machine.

This device automatically manipulates the actual output current by varying the applied voltage in real time in response to the natural dynamics of the electrophysiology of the skin and its sweat gland tunnels.

A constant current device can also self-adapt to the real-world electrical and mechanical interface (contact area) of the silver-nylon cloth electrode and the skin surface to which it is applied, as the person moves, breathes, hydrates and dehydrates.

As the flux of silver ions that can reliably and continuously cross the skin barrier via its sweat gland tunnels has a critical dynamic variance as described above, the precision of the constant current device for performing silver iontophoresis must be extremely fine.

The output current range—found by much clinical trial and error over a five-year period to be necessary and optimal for silver-nylon cloth electrode silver iontophoresis—is below 10 microamperes, and with an output current accuracy within a hundred billionths of an ampere of current (100 nanoamperes).

This is an electronic specification beyond the capabilities of microampere electrostimulators generally available or outside of a laboratory benchtop equipment setting.

In addition, as the output current is also very small in absolute terms of only a few microamperes, the stimulator device must control for changes in both ambient and local biological tissue temperature, which inevitably affects just about every element—biological and electronic—of the entire electroporation system, as described, via all the usual thermodynamic events generally known across the sciences.

Silver Iontophoresis for Infection Treatments

We can now tie together what has been discussed so far: (1) the innovations of Robert O. Becker and his use of electrified silver-nylon cloth that acts simultaneously as both the large physical area positive polarity electrode and the releasing material of silver ions; and (2) the ultra-low direct microcurrent of silver ions flowing through the otherwise formidable skin barrier via its sweat gland tunnels.

Combining these technologies, it is possible to deliver broad-spectrum and powerful antimicrobial silver ions directly to infected internal tissues (organs, glands, other anatomical structures) deep within the body. Such a silver iontophoresis procedure, which generates tiny subsensory microampere electric currents of silver ions, can be comfortably performed over extended periods, thereby effectively dealing with chronic and difficult bacterial and viral infections, even in hospital and emergency medical situations.

Therapeutic Index of Medications

For a drug such as an antibiotic, the Therapeutic Index is the standard way to assess its beneficial effects versus its potentially harmful ones. This is simply a relationship between the different concentrations of the drugs that have therapeutic effects and those that harm healthy cells.

A major study was reported in 2013 that tested the Therapeutic Index relationship for silver nitrate, which is not the same as and is less effective than electrically generated free silver ions but still gives us some illustrative data. An extract of the findings of this study is shown in figure 1.

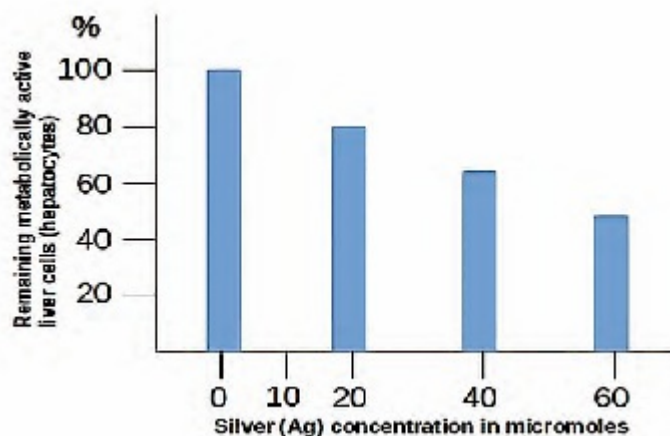


Figure 1: Therapeutic Index of silver nitrate: benefit versus harm (after J. R. Morones-Ramirez et al., "Silver Enhances Antibiotic Activity Against Gram-negative Bacteria", Science Translational Medicine 2013 Jun 19; 5[190], <http://tinyurl.com/gqhlxmx>)

With these data, the study demonstrated that silver is "well within" the Therapeutic Index range applied to government-approved antibiotics and without the other side effects of antibiotics that range from mild to very severe and long term.

Coincidentally to this discussion, the whole emphasis of the published study was biased towards showing how silver can enhance the effects of existing antibiotics. Reading between the lines, it was really a very nice overview of how silver can be used in place of antibiotics by the very methods of action studied by its authors.

From the clinical and laboratory experiences that have gone into the R&D of the electromedical equipment described in this article, we estimate that a strong beneficial effect occurs using this equipment at less than or equal to 2.0 parts per million, which is approximately 20 micromoles.

However, this calculation is imperfect because it is based on the very imprecise model that assumes a completely watery inner environment of the body, and also because it completely ignores the distance of the targeted infected tissue from the positive electrode releasing the silver ions.

In reality, the very different hydrations and densities of the various internal tissues of the body (bones, muscles, fat, etc.) along the pathway of the silver ion current, plus the distance factors, mean that the calculation is most likely a very large overestimate of what eventually occurs in the targeted infected tissue.

In other words, the actual concentration of silver ions (and also not of silver nitrate) is probably far below even 5.0 micromoles. Overall, this means that we achieve very high therapeutic benefit with no harm done to normal healthy cells—as shown by the first bar in figure 1.

To support these calculations further, multiple studies done by Becker et al. in the laboratory, where these relationships of effects are much more easily researched, always confirmed this Therapeutic Index for the electrically generated silver ion in question.

The SIS Machine: Universal Application

The other important design specification of the Silver Iontophoresis Stimulator (SIS) equipment in being able to replace antibiotic and antiviral drugs for localised infection treatments is that it can be applied by just about anyone and without requiring any professional medical or electromedical expertise or experience.

Basically, two silver-nylon conductive electrodes are moistened and applied to the body in a positioning configuration that cross-sections the targeted infected area (organ or other anatomical structure). They are held on with standard adhesive surgical or wound-dressing tape available from any pharmacy.

The electrodes are then connected to the controller device: a portable, palm-sized, smart electrical box, just small enough to fit into the user's pocket. The SIS Machine box is a highly sophisticated electronic instrument: a dual, high-precision, self-adaptive stimulator and sophisticated real-time algorithm-driven electrode-skin contact monitoring device.



Figure 2: Examples of silver-nylon cloth electrode positioning for treatment of a lung infection (two left diagrams)

and a stomach infection (two right diagrams). The red circles indicate the positive polarity electrodes in each case. (Base images created using ZygoteBody™ from <http://zygotebody.com>)

Figure 2 (above) shows typical placements of the silver-nylon cloth electrodes for two common infections: a bacterial or viral infection of the lung, and a bacterial stomach infection.

The equipment has already been used, highly successfully—in many cases where results have been confirmed by standard pathology tests—on young children and by nonagenarians. In numerous cases, it has already prevented the need for hospitalisations and (major) surgical operations.

Absolute Minimum Dose Delivery

We can now combine into a more overall understanding the science of the passage of the very smallest direct currents possible through the skin's sweat gland tunnels, outlined above, with the direct experimental and clinical experiential knowledge of the Therapeutic Index of the electrically generated silver ion.

Since actual electrophysiological parameters and limits are involved, the result of what this silver iontophoresis system achieves can be described accurately as the absolute minimum medication dose delivery. In other words, it is a minimum medical intervention that can be applied with high therapeutic effect.

The SIS Machine is intended and can be described as a kind of high-tech, electromedical addition to a home first-aid kit. The SIS equipment is equally highly appropriate for clinical, hospital, humanitarian aid and natural disaster area applications, to sterilise and protect exposed and damaged tissues quickly.

The SIS Machine project was also specifically conceived to serve as relatively very low cost and reusable medical equipment for less-developed and poorer populations and for use by remote (poor) communities.

Nonpharmaceutical complementary and alternative medicine (CAM), such as herbalism, naturopathy, homeopathy, etc., in the hands of a skilled and experienced practitioner can effectively deal with many health and medical issues. However, in clinical reality, the field of acute and chronic, localised, strong (disease-causing) internal infections by bacteria and viruses—often creating severe medical situations, hospitalisations and not infrequently still leading to deaths—remains generally outside of the scope of CAM treatments.

The SIS equipment can universally and globally fill the medical need for targeted and effective internal body infection treatments in a high percentage across all such cases.

A Patent for Global Benefit

The Silver Iontophoresis Stimulator technology is patent pending.

A patent is usually applied for to secure the future financial earnings of the inventor in reimbursement for their investment of time and money that went into the development of the invention. A granted patent, as a trade-off, must in return contain all the information necessary for someone else in the world "skilled in the art" to be able to reproduce the invention at the end of the term of the patent.

In reality, a top team of electronics and software engineers could most probably reverse engineer the actual electromedical (SIS) machines, described here, in a week; and complex and very expensive legal proceedings would be needed to defend the patent, if financial gain were the main aim for filing it.

The patent has only been applied for in Australia, meaning that duplication of the equipment anywhere in the world is legally immediately open.

The patent was applied for mainly for two related and nonregular reasons.

First, in patent law, a patent filed anywhere in the world constitutes prior art. Once patented, the whole invention or any part of it cannot be developed and patented by anyone else in the world. If the Australian patent had not been filed and another party anywhere in the world had filed international patents for the technology, then that patent-holder could legally prevent anyone else from introducing the same technology—and then, by simply delaying marketing it themselves, effectively shelve it for the standard international patent duration of 20 years.

Second, once granted, patents are publicly available documents, hosted on government computers for at least 20 years; and after that, since the rise of the Internet, they are still quickly and publicly available from online government archives of expired patents. This means that the invention of this SIS medical technology is guaranteed to exist as freely available information indefinitely.

This permanent, government-backed availability of the invention's details prevents the involved technology from being buried away somewhere, its potential benefits inaccessible to humanity.

About the Author:

Richard Malter lives with his family in Victoria, Australia. The inventor of the SIS Machine, Malter is the Clinical and Research Director of the Electromedicine Clinic & Research Lab, the only such dedicated clinic and laboratory in Australasia. He is the only clinician in the region who has training from and has presented his work at the international symposiums of the International College of Acupuncture & ElectroTherapeutics, New York, USA.

In 2013 he was named a Senior Research Scientist of the Research Institute of Global Physiology, Behavior & Treatment, USA. He is also a member of The Bioelectromagnetics Society and the Australian Traditional Medicine Society. He has been invited to present his clinical and research work at international medical and scientific conferences in the USA, Japan, Europe and South America.

In addition and parallel to his personal research interest in endogenous bioelectrics and bioelectromagnetism, Malter has strong political-medical agendas, including making major, direct contributions to the prevention of the documented millions of unnecessary deaths and ruined quality of life that are the result of some conventional medical interventions. The SIS machine project is a prominent example of such a contribution.

Further information about the SIS Machine equipment and Richard Malter's clinical electromedical work can be found at the websites

<http://www.siselectromed.com>

and

<http://www.electromedicine.org.au>.

References

Supporting research and references for this article are available at
<http://sismachine.com/international-research/>.



EFFECTS OF ELECTRIC CHARGES ON HONEYBEES

by **Dr rer. nat. Ulrich Warnke**

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Introduction

The fact that insects can carry an electrostatic charge is neither surprising nor new. A paper on the electrical properties of insect hairs was published as early as 1929.⁹

The subject was not pursued further for a long time, seeming to be without importance; but when proof was obtained that bees and other insects in electric fields show changes in behaviour and metabolism, the electrostatic charges on them acquired a new significance. For this reason we tried, first of all, to measure the electric potential on the body surface of bees and then to ascertain the various factors that influence it.¹⁴

From the measurements, which were initially purely physical, a physiological interest emerged which had not previously been recognised. A large number of new viewpoints came to light for discussing the perception of electric fields and also intraspecific communication of social insects, and for "weather sensitivity" and orientation.¹⁵ Any working hypothesis had to be based on the fact that insects evolved relatively early in the history of the Earth.

Since then, electric fields in the atmosphere, and electromagnetic oscillations and atmospheric ions, have become established as meteorologically correlated factors in the insects' habitat. It seems unlikely that they should have remained unused as sources of information, especially by animals at a primitive evolutionary stage.

Charges on the Body of an Individual Bee and on the Colony

The body surface of a bee can be divided roughly into two areas as far as its electrical behaviour is concerned. All the membranous and glandular surfaces of the cuticula show great variations in potential, whereas the rest of the surface is at a low potential, up to +1.0 V.

Over fairly short distances, there may be fairly high intensities of electric field, 25 V/0.2 cm.

These measurements show certain peculiarities.

(a) Static potentials can be measured only from the antennae; elsewhere on the body there is an effect analogous to the discharge of a condenser.

(b) A bee is able to change the polarity of an antenna, completely or partly, in less than a second (figure 1). The change usually occurs just before flight take-off, suggesting perhaps that this change of polarity has some function in orientation. It may be brought about by an active stretching or compression of the cuticula (piezoelectric effect, electrostriction).

(c) The bee is insulated electrically from any underlying surface by the claws of its tarsi, but it can make electric contact with the surface by means of the electrolyte secreted from the arolium. According to the sign and magnitude of the potential of the underlying surface, the bee then becomes either charged or discharged.

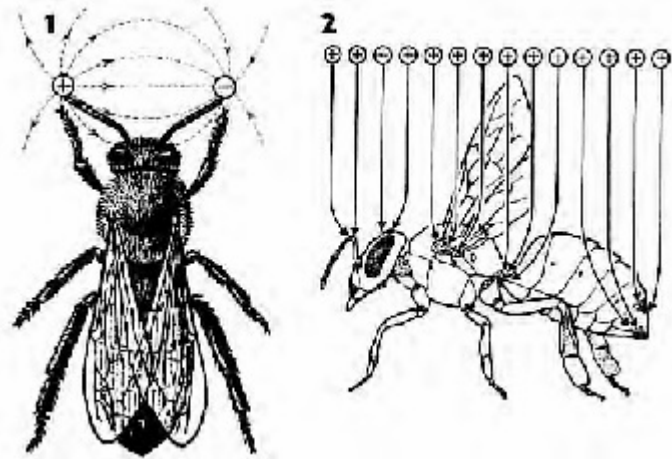


Figure 1: (left) Diagram illustrating the dipole effect of a bee's antennae. The bee is able to change the polarity of an antenna (e.g., from positive to negative) within seconds. The dotted lines give a stylised indication of the lines of the electric field.

Figure 2: (right) Diagram showing the lines of the electric field originating from the spatial charges; they are concentrated in cuticular areas of high electrical conductivity.

Every colony as a whole shows a level of charge which is characteristic of it, depending on its strength and the amounts of brood and honey in it. The alighting board immediately in front of the hive entrance is within the electrical influence of the colony.

In the first place, the wood of the alighting board acts as a potential-distributor for currents originating in the hive. Second, when bees are fanning (either ventilating or scenting), charged particles are whirled out of the hive.

Beyond a (measurable) distance from the entrance, the electrical influence of the colony ceases. On days when a colony has a negative potential, positively charged bees returning to it change their potential from positive through zero to a negative value during flight. On other days when the potential is positive, those bees that have a small positive potential increase this more and more as they approach the colony (figure 3).

It is possible to record the arrival or departure of an individual bee, within a suitable distance of the hive entrance, by recording the change in the potential of the colony with a sufficiently sensitive instrument.

Environmental Influences

• Electric field

Under the influence of an external electric field, a bee and all electrolytic pathways in it (haemolymph, epidermal secretions) are affected. The lines of the electric field are concentrated towards those areas of the cuticula which have a higher electrical conductivity (due to ion pollution or local precipitation of moisture), or which present a pathway of lower electrical resistance to the inner organs via the haemolymph (membranes, parts of the integument which act as sensors) (figure 2).

The cuticula of antennae of live bees shows higher potentials than the rest of the body surface. Comparing individual bees, the antenna potential of a queen is approximately twice that of a worker. This difference is due to the paired ovaries of the queen, which present an extensive electrolytic surface capable of being affected by an electric field.

• Atmospheric ions

The amount of electric charge on a bee that is "whirring" its wings (schwirren in German) depends on the number of unipolar ions per unit volume of air. The charge originates from the friction of the wings against the air.

• Humidity and temperature

In relatively humid air, the surface of a bee's body is covered with a conducting film of fluid. Once there has been discharge to earth, subsequent charging of the bee is impossible.

• Light irradiation

The incidence of light on the cuticula increases its surface conductivity. The results of recent experiments also indicate a photoelectric effect, i.e., emission of electrons from the cuticula under the influence of solar radiation.

Changes in Behaviour Brought About by Electric Parameters

An applied low-frequency field of 1-10 kV/m increases the metabolic rate of bees above that of bees screened electrically.^{1,4}

The hyperactivity of colonies in electric fields such as occur under high-tension wires has already been described.^{11,18}

Recently we have obtained new results from controlled laboratory experiments, and have made a film which demonstrates them.¹⁶ Bees in a strong electric field became aggressive, stinging each other to death; communication was disturbed. At still higher fields, the bees tore out the brood from the cells, and no new brood was produced. The bees left their hive if they could, or otherwise they sealed themselves inside it with propolis, closing not only any crevices and holes but also the entrance. Lack of oxygen led to intensive fanning, as for ventilation; abnormally high temperatures were produced, and the bees died.

Colonies subjected to electromagnetic oscillations (10-30 kHz, 800 V/m) produce a changed pattern of sounds, and their temperature increases.^{5,17} Given a choice, bees will evade such oscillations.¹³

Increased concentration of atmospheric ions increases motor activity and also affects the water balance of the bees.² Extensive electric screening of bees by a Faraday cage reduces general activity and results in a pathological loading of the rectum.²

Human beings—often with a high electrostatic charge, as when they wear clothing of synthetic materials—can subject bees to considerable electric shocks, which may make them aggressive.

Experiments have provided clues to some of the mechanisms which release the effects of electric parameters. A direct electric field (or an alternating field of low frequency), in which a bee is situated, undergoes a displacement at the body surface of the bee. It is to be expected that the force brought about by the field would produce a distortion of mechanosensilla.

Corresponding experiments on the human epidermis, using an electro-optical method, have shown rhythmic bending of hairs that keeps time with the changes in a direct electric field. In the presence of electromagnetic oscillations (about 20 kHz, 800 V/m), the petiole of a bee becomes warmer, perhaps indicating muscular activity or the concentration of current through a smaller area. If the ion concentration of the air is high, peak discharge currents of about 10×10^{-8} A may occur at the antennae; these are sufficiently high to produce physiological excitement.

Weather Sensitivity of Bees

Weather sensitivity is a well-recognised phenomenon. It is particularly apparent when a thunderstorm is approaching: bees that have been foraging return to the hive in large numbers, and a considerable time before the storm breaks the bees show increased "irritability" and readiness to sting.¹²

Some types of behaviour can be correlated with atmospheric electrical factors. The level of the electric potential affects the ability of bees to imbibe food.¹² It also affects the onset and course of the flight of young bees from the hive¹⁰ and aggressivity.¹⁴ The fact that the bees' ability to return to their home or hive varies from time to time can be attributed to atmospheric disturbances (electromagnetic oscillations in the long-wavelength range).⁶

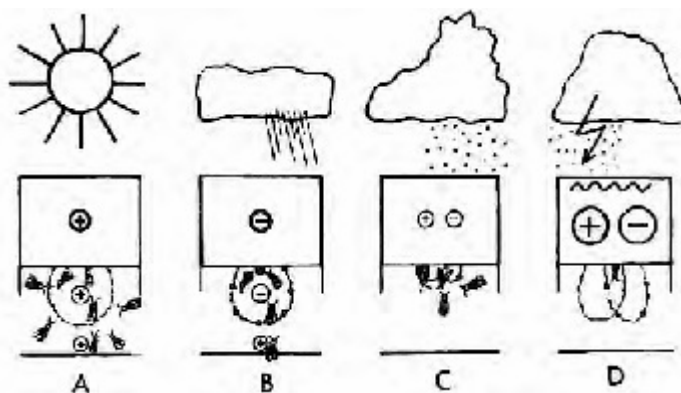


Figure 3: Charges on bees and colonies in relation to the weather.

A. In fine weather, the colony and the bees are positively charged.

B. In rain, the charges are mainly negative, under the influence of the polarity of the clouds. The polarity of bees

returning from foraging is changed.

C. Before a thunderstorm breaks, the high relative humidity causes discharge of bees on the ground, and a high bipolar concentration of atmospheric ions discharges bees in the air.

D. During the discharge of lightning, very high variations in electrical potential occur in the colony.

Changes in weather and cloud formation are associated with changes in electric potential, which produce local changes of charge both in the individual bee and in the colony (figure 3), and this could account for the bees' "recognition" of the dynamic course of weather changes.

Corona discharge due to high atmospheric field intensities (for example, from the tips of grasses and leaves) must also be taken into account: they might produce a UV [ultraviolet] pattern visible to the bees which, being unstable in time, could confuse their orientation.

Electrocommunication

All modes of behaviour in which the wings produce a current of air (e.g., scenting), or movement by the bee (flight), create an alternating field in the bee's immediate neighbourhood (figure 4 - below).^{3,15}



Figure 4: Oscillogram of the electric field of a bee "whirring" its wings (schwirren). The field shows amplitude modulation, and inevitably affects neighbouring bees.

An influence (induction) on nearby bees inevitably occurs. The same is true of rhythmical movements of parts of the insect's body, such as all forms of dance (figure 5 - below) and antennal contact.

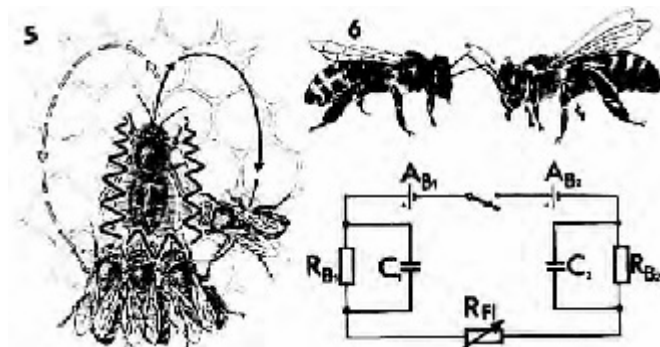


Figure 5: (left) The wagtail dance: communication of information by means of the alternating field produced? (Diagram modified from von Frisch.)

Figure 6: (right) Antennal contact between two bees produces a discharge current if the antennae had different polarities. The current is large enough to produce physiological stimuli.

In the circuit diagram:

A_{B1} , A_{B2} represent the two bees as sources of electric energy. R_{B1} , R_{B2} represent the internal resistance of the bees' bodies.

C_1 , C_2 represent the capacities of the two bees.

R_{F1} represents the resistance of the alighting board.

If two bees at different potentials make contact through their antennae, a current will flow from one to the other, its strength depending on the bees' internal resistances and the resistance of the underlying surface.

If one accepts the findings of Galuszka and Lisecki⁸ that different colonies have different internal resistances, then it seems possible that a bee may make antennal contact with another bee and recognise whether it belongs to the same colony by the decrease of internal potential resulting from the contact (figure 6 - above).

Electronavigation

Looked at from a physical point of view, a flying animal constitutes a moving charge, i.e., an electric current (convection current). Provided a bee does not fly parallel to the Earth's magnetic field, a small force is exerted on it which is proportional to the flight speed (Lorentz effect). This force produces an electric potential (Hall effect).

Calculations on the charging of insects by natural electrical factors show that insects become discharged a considerable time before a thunderstorm breaks, whether they are in the air or on the ground. If an electric charge is basically important for the orientation of insects, the discharge would be followed by disorientation and possibly increased aggressiveness.

This series of conjectures could be extended, but the first thing is to obtain further experimental results. It is hoped that this article will encourage scientists to include the investigations of effects of electrical factors in their future research on bees.

About the Author:

Dr rer. nat. Ulrich Warnke (b. 1945) is a German inventor of therapeutic and diagnostic devices who lectured for nearly 40 years in biomedicine, biophysics, environmental medicine and other subjects at the University of Saarland, Saarbrücken. He is the author of many books, most recently on quantum philosophy and mind power.

Editor's Note:

This article is edited from Dr Ulrich Warnke's paper in *Bee World* 1976; 57(2):50-56, available as a pdf at the web page <http://tinyurl.com/2ve7bb>. The order of references has been retained.

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Echoes of the Great Flood in the Americas

There are remarkable similarities between the Flood myths preserved within the cultures of the Americas and around the world. In the light of geological evidence, it's likely that these myths describe real events involving global or localised destruction, the stories passed down by survivors.

by **Rafael Videla Eissmann**

© July 2016

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This world [America] was certainly inhabited before the Deluge.

— Fray Antonio de la Calancha,
Coronica moralizada del Orden
de San Agustín en el Perú, 1638

Myth as Sacred Narrative

The Legend of the Suns of the Mexica—as Adela Fernandez clarifies in *Dioses prehispanicos de Mexico* ("Pre-Hispanic Gods of Mexico", 1991, p. 22)—states that in the Age of the Fourth Sun, Tzontilic ("Black Hair"), the city of Tula was built. It also indicates that men starved to death during a rain of blood and fright:

The god Citlaltotac, "Milky Way", sent a messenger to encounter Chimalman, a virgin who had two sisters, Xochitlicue and Coatlicue, who died of fear when they saw the messenger of the god; he announced that she [Chimalman] would conceive a son—which happened after he visited her house. The son was Topiltzin Quetzalcoatl, the Wind God, whose temples were round in shape. The gods that ruled were Citlaltotac and Xochiquetzal.



The white and bearded god-man Quetzalcóatl next to the glyph of his name, the Winged Serpent, on Teotihuacán pottery of Pre-Hispanic Mexico.

This unique and amazing description of the last age is defined by the Mexica's magic-symbolic and esoteric tradition, but nevertheless it speaks of a real event: the worldwide catastrophe known as the last Great Flood that took place approximately 13,000 years ago.

Significantly enough, the book *Horbiger's Glacial-Kosmogonie: Eine neue Entwicklungsgeschichte des Weltalls und des Sonnensystems* ("Glacial Cosmogony: A New History of the Universe and the Solar System", 1913) by engineer Hanns Horbiger (1860-1931) and astronomer Philipp Fauth (1867-1941) also describes this event and explains it by the cosmic ice and fire elements that determine all the dynamics of the solar system.

Thus, the myths and the fragmentary legends that preserved this event have to be understood as Mythos-Logos, a "Sacred Narrative", which is found in all continents and in almost all ancient civilisations.



The Great Flood portrayed in the Dresden Codex (page 74). At the upper part appears the goddess Chaahk Chak Chel, while in the lower part the powerful B'olon Yokte' K'uh—the "Nine Gods"—is holding a crosier. Above these figures is a dragon or serpent from whose mouth flows a torrent of water symbolising the Flood.



The Great Flood depicted in The Madrid Codex (page 25) is also represented by a lizard or a serpent.



The runic stone of Altuna in Uppland, Sweden, shows the struggle between Thor and Jörmungandr, the serpent of the Ragnarök or "Final Destiny of the [Asen] Gods".

It was the Gotterdammerung ("Twilight of the Gods") of the Germans; the survival of Deucalion in the ancient Greek tradition; the Deluge announced to King Svayambhuva Manu (Satyavrata) by Vishnu's avatar, the giant fish Matsya, in India; the Tripalafken of the Araucano of Southern Chile; the Llocllavuno Pachacuti of the Andean civilisations; the Yporu of the Guarann and the Apachiohualiztli of the Mesoamerican records.

Interestingly, one of the studies presented at the American Geophysical Union Meeting in 2007 in Acapulco, Mexico, concluded that c. 13,000 years ago an extraterrestrial body crashed into the Earth, creating a rain of fire that burnt most of the northern hemisphere.

As a consequence of this cosmic phenomenon, primitive cultures of the Stone Age were devastated and an estimated 35 species of megafauna, such as mammoths and mastodons, became extinct in a relatively short period of time.

Mythical and Scientific Languages

This rain of fire is present in the myths of numerous cultures of the Americas, such as the Diaguita, the Tiahuanacota, the Chibcha and the Maya, among others. For example, Mariano Izquierdo Gallo mentions in *Mitología Americana* ("American Mythology", 1956, section 7) a myth of the solar culture of the Tupf—or Tupa-ia, the "Race of the Thunder"—that speaks of the god-man Monan and the rain of fire (emphasis added):

Monan **made fire fall from the sky**. Fire consumed all that there was on Earth. The action of the fire's heat was so powerful that it formed the valleys and mountains.

Only one man survived because Monan was merciful. In order to save him, he took him to heaven or to a beautiful place. Later on, Monan gave him a woman and from their union all people descend.

Monan, the first of the civilising heroes, is also the creator of men. Monan, when old, and much later after creating men, destroyed the world by a Deluge and by fire.

After him there came Maire-Monan, the transformer, who, on the other hand, is identified by many with Monan. He had the power to transform men and animals in all types of things and to punish them for their wrongdoings. It was he who taught the Tupinamba land farming and the art of good government.

A myth tells of men who, quite upset because of some metamorphosis that Maire-Monan had subjected them to, plotted to kill him. They invited him to a party, and one of the main attractions was to make Maire-Monan jump over three big bonfires. After jumping over the first one, he started to faint; and then while jumping over the second one he died, burning in the flames. When his head exploded it originated the thunder, and with the flash of

his body the lightning was formed. Then he was transported to heaven where he now shines as a star.

This is not the only record that speaks about the rain of fire. By the beginning of the 20th century, scholar Cecilio Robelo in his study of Nahuatl mythology recorded a Mesoamerican legend with a similar description, as noted by Fernandez (op. cit., p. 23):

After Tlaloc made himself the Third Sun, during 364 years, at the end of which Quetzalcoatl made a **rain of fire**, and as the Sun, instead of Tlaloc he placed Chalchiuhtlicue, "the one with the emerald skirt", who lasted for 312 years; the water flooded over the earth and the heavens lost their balance and fell down over the Cipactli.

This is the mythical language. In today's scientific language, the geological evidence indicates that microscopic diamonds or nanodiamonds have been detected in 26 locations in Europe and North America. These nanodiamonds were created as a result of the high pressure reached by the heavenly body's fragments that crashed into the Earth, converting its coal into diamond dust. Geologist Allen West explained this in May 2007 (<http://tinyurl.com/jhrjhs>):

The shock waves and the heat would have been tremendous. [They] would have set fire to animals' fur and to the clothing worn by men and women. The searing heat would have also set fire to the grasslands of the northern hemisphere. Great grazing animals like the mammoth that had survived the original blast would later have died in their thousands from starvation. Only animals, including humans, that had a wide range of food would have survived the aftermath.

Archaeologist Dr Douglas Kennett (University of Oregon) commented on his co-written paper in Science, 2 January 2009 (<http://tinyurl.com/hb56h7k>):

These discoveries provide strong evidence for a cosmic impact event at approximately 12,900 years ago that would have had enormous environmental consequences for plants, animals and humans across North America.

As the geological evidence reveals, around 12,900 years ago the last Ice Age was ending and the weather was gradually becoming warmer, although the high latitudes of both hemispheres were still covered by enormous ice layers.

Thus, the fragmentation of the extraterrestrial body into incandescent pieces—the rain of fire—melted these layers in such a manner that water released into the Atlantic Ocean changed the tides, affecting especially the Gulf Stream. Its effects resulted in a long-term period of cold that lasted at least 1,000 years, affecting Europe, Asia and the Americas.

Over time this event, according to the vision of descendants of survivors of the Great Water, became the myth of the Deluge, found in every continent and in most cultures around the world. In the Americas, the tradition of the Great Flood is the milestone of cultures such as the Selk'nam, Araucano, Aymara, Quechua, Uro, Chachapoya, Canari, Guarani Tupac Chibcha, Toltec, Maya and others which preserved in their sacred myths and rituals the origins, meanings and consequences of this catastrophic process.

Despite the local variations, such as the number of survivors, the places where the events occurred and the reasons for the disaster, in general terms all of these myths are similar. Thus, according to the sacred book of the Quiche, the Popol Vuh, the gods asked Hurakan ("Heart of Heaven") to destroy humanity and flood the world.

The myth in the Aztec tradition evokes Coxcoxtli, one of the survivors who steered his boat, just like Noah, to the Calhuacan Mountain, managing to stay alive with his family and the animals in his care.

However, when the first Christian missionaries came to the Americas, many of them thought that, due to the great similarities of the Flood myth found in the continent, Europeans had arrived before them in earlier times.

This is an example of what happened when missionaries contacted the tribes that lived in the eastern part of what is Washington State, USA, such as the Spokane, the Pierced Noses, the Cayuse and the Yakama, discovering that these tribes had a mythical tradition of the Great Flood in which only one man and a woman escaped aboard a raft or canoe. As ethnologist Sir James G. Frazer wrote in Folk-lore in the Old Testament (1919, p. 325):

Each of these...tribes, together with the Flathead tribes, had its own separate Ararat on which the survivors found refuge.

Yet, the reason why this myth is found worldwide lies in one simple fact: the Flood was a worldwide phenomenon that nonetheless had regional characteristics and implications.

Survival and Destiny

As with Noah in the Middle Eastern tradition, Coxcox in the Mesoamerican, Tarapaca-Viracocha in the highlands of the Andes and Moctezuma in today's Arizona, the refuge of the survivors was usually found at the tops of high mountains.

This is one reason for the sacredness of the mountains in various traditions: Melimoyu (Patagonians), Tren Tren (Araucano), Huillcacoto and Macacoto (Huarochirf), Huaca-ynan (Canari), Cumancaya in the Alto Ucayali (Shipibo-Conibo), Sierra Negra (Kagaba), Lavachi (Raramuri), Parbus (Yaqui), Colhuacan or Culhuacan (Mexico), Santa Rosa Mountain (Papago), Katuta (Luiseno), Nzukeski (British Columbians) and Olympic (Tuana).

This revered nature is reflected in a Baltic myth, according to Theodor H. Gaster in *Myth, Legend, and Custom in the Old Testament* (1969, p. 93):

From his heavenly window, the supreme god Pramzimas saw nothing but war and injustice among mankind. He sent two giants, Wandu and Wejas (water and wind), to destroy Earth. After twenty days and nights, little was left.

Pramzimas looked to see the progress. He happened to be eating nuts at the time, and he threw down the shells. One happened to land on the peak of the tallest mountain, where some people and animals had sought refuge. Everybody climbed in and survived the flood floating in the nutshell.

God's wrath abated; he ordered the wind and water to abate. The people dispersed, except for one elderly couple who stayed where they landed. To comfort them, God sent the rainbow and advised them to jump over the bones of the Earth nine times. They did so, and up sprang nine other couples, from which the nine Lithuanian tribes descended.

The mythical language speaks of facts that only with the passage of the ages have been covered by ethical, moral and cultural factors and that only much later were considered with the fable-like meanings known today. In this sense, the reality of the last Great Deluge based in both the cultural traditions and the geological evidence is unquestionable.

Yet how would it be possible to understand, as certain anthropology and historiography schools have no knowledge of the concepts of glacial cosmogony and the multidisciplinary *Welteislehre*, or "World Ice Doctrine", that this great event was the basis of a foundational myth sourced in one place and spreading from there, or was even a psychological and social necessity in establishing a cultural paradigm?

The Great Catastrophe was the milestone that marked the development of the people living on the continent known today as the Americas. The prediluvial inhabitants suffered the disastrous consequences of this planetary disaster, facing at least three possibilities: extinction, emigration or survival.

1. Extinction

There are cultures throughout the Americas whose archaeological remains have no continuity with later groups that lived in the same areas. Instead, there is an overlaid adaptation and use by later indigenous cultures.

Some examples are at El Enladrillado (Chile), Tiahuanaco and Puma Punku (Bolivia), Machu Picchu (Peru), the astronomical observatory of Calgoene (Brazil) and Aztalan (Wisconsin, USA). Although indigenous people lived in these sites or in their vicinity later on, they did not build them.



Representation of Tarapacá-Viracocha, the founder of the primitive Tiahuanaco, in the Gate of the Sun at Tiahuanaco in today's Bolivia. According to the myths, and the geological studies of scholars such as Arthur Posnansky and Edmund Kiss, Tiahuanaco-Puma Punku was a prediluvial settlement.



In the Age of Ehecatonatiuh, the Age of Wind in the Mesoamerican narrative presented in the Legend of the Suns, men were thrown by Nahui-Ehécatl, "Four Wind", and were transformed into monkeys. In the upper part of this illustration appears Quetzalcóatl-Ehécatl as the Wind God descending from heaven. (Codex Vaticanus 3738, page 6)

This same notion was pointed out by historian Diego Barros Arana in *Historia general de Chile* ("General History of Chile", 1884, p. 19):

The traditions of the American people at the time of European conquest could not give a fairly light on the origins of this civilisation, or about the time of its birth and development. The mounds or the pyramidal structures found in abundance in America, the majestic palaces of Copdn and Palenque in Central America and Tiahuanaco, among many others, were contemporaries of the pyramids of Egypt and were deserted and ruined at the time of European conquest. They were not the work of the people that Europeans met. The indigenous people who lived in the 16th century in the neighbouring fields of these venerable and mysterious ruins ignored the history of them or just had fables and unrelated stories about the civilisation that had raised these buildings. The inscriptions found in them could not be interpreted either in a satisfactory manner. The powerful monarchies of the Aztecs and of the Incas, which no one can give a great antiquity to, since the various studies of chronology assigned point to only a few centuries, were formed from the remains of a much advanced civilisation. This ancient civilisation had experienced one or more crisis, and it was beginning to rise when the European conquest came to destroy it.

2. Emigration

There were guides, divine figures or gods who warned humans about the coming disaster—beyond the notions of good and evil contained in the myths that very likely corresponded to the Christian ethics of the missionaries who wrote them down—instructing some men and women to escape before the Great Flood started or to seek a safe haven. These were the shelters—temples—in the high mountains, and the boats or arks that were constructed.

A number of people took their provisions and left not only their homelands but migrated on a transcontinental scale.

In this regard, Professor Roberto Rengifo in his essay "El papel del territorio de Chile en la evolución de la humanidad prehistórica" ("The Role of the Territory of Chile in the Evolution of Prehistoric Humanity", 1935, p. 11) established several postdiluvial migrations from America to Europe and Asia:

The last major migration took place 9,000 years ago in Taltal, on the northern coast of Chile. They were the Uros who, with all coastal settlements or countries occupied and seeking an uninhabited one, reached the bottom of the Persian Gulf and founded the city of Uruk, carrying with them ceramics and metals—this city that was the seed of the Indo-European or Aryan civilisations from which Proto-history begins, being all the period before Prehistory and being History for only the past 2,500 years since the discovery of alphabetic writing.

In addition to this, historian Pierre Carnac in *El Primer Descubrimiento* ("The First Discovery", 1983, pp. 105, 246)

suggested a similar idea. According to Carnac, the third-century Greek author Claudius Aelianus in his *Varia Historia* ("Various History") related that Theopompus testified that Silenus had described a continent to Midas, King of Phrygia. Silenus told the king:

Europe, Asia and Libya [Africa] are a sort of large island [continent] surrounded by ocean waters, and beyond the Great Ocean there is a real continent [America]. This unknown or forgotten vast tract of land was inhabited, according to Silenus, by men stronger than the Greeks, who lived much longer, having also in their world great wealth, including vast amounts of gold and silver. The text mentions the name of a great city, Makimos, "The Accurate", and according to the testimony of Theopompus the inhabitants of this continent once visited our hemisphere.

3. Survival

As myths enlighten—certainly covered by magical-religious, ethical and moral factors—there were survivors of the Great Flood in different areas of the Americas. They found shelter at the top of high mountains—this being, as it was explained before, one of the reasons for the sacredness and worship of the mountains conceived as abodes or thrones of the god-men.

Of great importance as well are the records in these mythical traditions of the Tree of Life, whether the Wuanamei, the Genipa, the Lupuna, the Pullao, the Sapote or the Palm of Life as a place of salvation and therefore as a real and tangible symbol of the Axis Mundi. The same notion is found in Europe where the sacred ash Yggdrasil (Irminsul) was the place where Lff and Li'fthrasir—the survivors of the Great Flood in the Norse tradition—found refuge during the Great Catastrophe.

The remnants of the Americas prediluvial population, or Palaeo-Americans, were the so-called White Indians whose last offspring were witnessed by Europeans such as Jose de Acosta, Pedro Cieza de Leon, Felipe Guaman Poma de Ayala, Gaspar de Carvajal, Pedro Martir, Antonio de Herrera and Pedro de Valdivia at the time of the discovery and conquest of the Americas and even during the 20th century by explorers such as Percy Harrison Fawcett, Edmund Kiss and Víctor Larco Herrera.

This aboriginal group was ethnically and culturally different from those groups that gradually populated the continent in successive waves from Asia via Bering Strait and the Aleutian Islands and through the Trans-Pacific via Australia, Malaysia, Polynesia and the Antarctic bridge.

Was the Ark a Flying Craft?

Was it only at the high mountain temples and in the arks where the survivors found shelter during the last Great Flood? What do the myths tell about it? Strikingly, the high mountains and boats were not the only options. Some of the survivors were literally taken to heaven during the Flood (emphases added below).

In *Compendio de la historia geográfica, natural y civil del Reino de Chile* ("Compendium of the Geographical, Natural and Civil History of the Kingdom of Chile", 1776), Abbe Juan Ignacio Molina recorded the mythical tradition of the Araucano and how their ancestors or Lituhe survived the Deluge in the mountain known as Thegtheg, the thunder-maker or the flashing-one which had **the power to float over the waters** .



A representation of the Deluge myth in India, where the Seven Rishis escaped the flood in a "craft". The avatar Matsya, or first incarnation of Vishnu in the form a giant fish, rescued the sacred books that were lost during the Flood. At the top right side is a Vimana craft. (Wood carving c. 1790.)



Just as with Pre-Hispanic myths, the Middle Eastern tradition that conforms with Noah's record speaks of the salvation of humans, animals and vegetables in an ark. Could it have been a tank of genetic information incomprehensible to the later post-diluvial generations? Was it like the Thegtheg of Araucano myth which had the power to float over the waters? (Illustration by unknown artist for Petrus Comestor's *Historia Scholastica*, c. 1173, republished in *Bible Historiale*, 1372.)

Ethnologist Rodolfo Lenz in *Tradiciones e ideas de los araucanos acerca de los terremotos* ("Traditions and Ideas of the Araucanians about Earthquakes", 1912, p. 21) explained that Thegtheg—or, more accurately, Trentren—is where men found shelter; it had four legs and it could fly:

When the flood starts it goes up and ***it stays in heaven*** ... And when the flood stops, then once again the Trentren comes down.

Similarly, a myth of the ancient Pre-Hispanic people of Nicaragua—Nic-atl-nahuac or "place surrounded by water"—gives this description according to Byron C. Nelson in *The Deluge Story in Stone* (1931, p. 188):

The world was flooded but ***one couple escaped to heaven*** . ***They returned to Earth*** afterwards and restored it. From them, mankind descends.

Among the TuplCocama of the Peruvian Amazons—as Consuelo de Paiva Mendes Costa refers to in *Orientacion en el espacio y la importancia de Nhande Rovai en los mitos religiosos de los guaranies Apapocuva-Araribd* ("Orientation in Space and the Importance of Nhandei Rovai in the Religious Myths of the Guarani Apapocuva-Arariba", 2003)—the divine Nanderuvusu warned Guyraypoty about the coming catastrophe and helped him and his family to survive:

Then Guyraypoty sang the Neengaraf. And the house started to move, spinning, floating over the waters, flying up and disappearing. Then they ***reached the threshold of the sky*** and the water stayed behind them.

In the myth of the Selk'nam of Tierra del Fuego, recorded by historian Carlos Keller in *Dios en Tierra del Fuego* ("God in Tierra del Fuego", 1947), there are also such references. After the Deluge, Lem ***ascended to heaven*** .

Likewise, Kuamachi, one of the "Star People" of the Makiritare of today's Venezuela—according to information given by Marc de Civrieux in *Watunna: An Orinoco Creation Cycle* (1980)—after the Deluge ***went up to heaven***, becoming the Evening Star.

Another similar description is given by the Tonasseares or Tupinamba about Tamendonare and Ariconte of Cabo Frio in Brazil, where a whole village was ***taken to heaven*** , as James G. Frazer wrote in the abovementioned Folklore in the Old Testament.

Also, the myth of Monan, mentioned before, speaks of a man who was ***carried to heaven*** during the Deluge.

History Preserved in Myth

Could all the myths—the sacred history—of ancient cultures and civilisations of antiquity be wrong? How could they all have similar references and meanings? Was it just coincidence?

There is no interpretation or inaccurate translation in all these myths. They inform us of real events, of past realities, that for a long while were considered to be fables and fairy tales. But today it is possible to understand their essence and their cultural context and projection.

The lore preserved in ancient myths speaks of those divine beings who came from the stars and either created humanity or were the ancestors of humanity. The wonderful megalithic, astronomical monuments of antiquity provide traces of their knowledge and wisdom—which at the same time is clear proof against the evolutionary dogma. Now, with the development of spacecraft technology by 20th-century visionaries, the reality of flying craft in remote times can be appropriately understood.

About the Author:

Rafael Videla Eissmann is an historian from Chile who has written several books and articles about the Antarctic origins of mankind, the vestiges of the primal civilisation of the Americas and its symbols, and other aspects of the PreColumbian cultures. Some of his books are: *Simbolos Runicos en America: El regreso a la tierra ancestral* ("Runic Symbols in the Americas: The Return to the Ancestral Land"), with foreword by Vicente Pistilli, 2011; *Mitos del Polo Antartico: Cosmogonia y antropogonia de la civilizacion prediluvial* ("Myths from the Antarctic Pole: Cosmogony and Anthropogony of the Prediluvial Civilisation"), 2012; *Los Lituches: Los hombres-dioses de la tradicion del sur del mundo* ("The Lituches: The God-Men of the Southern Hemisphere Tradition"), with foreword by Erich von Daniken, 2014; *Los Dioses Extraterrestres y el regreso de B'olon Yokte'K'uh* ("The Extraterrestrial Gods and the Return of B'olon Yokte'K'uh") with foreword by Erich von Daniken, 2015; and *El Gran Diluvio: Mitos americanos sobre la ultima catastrofe planetaria* ("The Great Flood: Myths of the Americas about the Last World Catastrophe", with foreword by Marco Nunemann, 2016.

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Change Your Mind, Change Your Body

Increasingly, research is showing that our mind, perceptions and beliefs control our body. By changing and developing our mindset, we can improve our physical health, recover more quickly from injury and reduce discomfort from pain.

by **Mark Baker**

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For a long time I have been fascinated with the power of the mind and what it may be capable of achieving. In the early 2000s, someone suggested that I read a book by Louise L. Hay. I did, and it made me realise just how much an individual can control their life.

My interest in using the mind to control pain and to heal came a little later when I realised that these factors could be helpful to others and are measurable. I was inspired by the Buddha, who said much about overcoming pain and suffering. I explored the work of Dr David Hamilton, Dr Jon Kabat-Zinn, Shinzen Young, Dr Joseph Murphy, Dr Ernest Rossi, Norman Cousins, Dr Angel Escudero, Hratch Ogali and others. A common thread that emerged is that we can do amazing things when we understand, believe and know how. Of course there are limits, but most of us are probably not even close to the halfway point of what is possible with our minds, let alone reaching the limit.

Here I share some examples which demonstrate that we all have the power to control our pain and strongly influence our recovery with our mind.

Multiple Personality Disorders

Bennett Braun, MD, a specialist in treating multiple personalities at the Rush-Presbyterian-St Luke's Medical Center in Chicago, reported that many of his patients had several different spectacles—one for each personality— because their vision changed along with their personas. Let's just think about this. The same person but with a different personality needed a different pair of glasses. This example must be a one-off, surely? No!

The American psychiatric press shared a story of patients needing a different drug dosage for an illness depending on which persona they were in. One case showed a woman with diabetes in one persona but not in another, and a young man with an allergy to citrus in one personality was fine in another.¹ All of these examples clearly demonstrate that our mind, perception and belief really do control our body.

Here is a little experiment to help show how you can use your mind to affect your body...

Imagine that you are walking down a dark alley in a city you do not know. A big man steps out in front of you, blocking your way. You turn around to see his accomplice trapping you in the alley. They move towards you menacingly.

What you may have noticed is that your heart rate and breathing increased, just by controlling your thoughts. Now you know that you can make your mind control your body. But you can do more.

Hotel Maids Study

By raising our awareness of the good we are doing to ourselves, we can improve our body. This was shown in an experiment involving 84 female room attendants working in seven different hotels. The amount of physical work involved in cleaning, moving equipment and furniture as well as making beds was equal to a good workout.

The question was asked: "Why are the maids not fitter?" Dr Ellen Langer of Harvard split the maids into two subgroups, with one group told that they were doing more exercise than was expected in one day. One month later, the researchers found that the group with the exercise information had lost more weight and had lower blood pressure than the group without the information.²

Just by raising their awareness of their daily activity was enough for the maids to improve their bodies. This demonstrates that by raising our awareness about pain or recovery from a condition, we can have a positive effect on our body.

Superhuman Strength

The phenomenon of "hysterical" or superhuman strength perhaps can best be described by The Silva Method³,

which states that any mental and physical change will always come from having the three traits of desire, belief and expectancy. Before expanding on these traits, let's consider examples of hysterical strength.

Marie Payton's granddaughter's attempt to stop a runaway ride-on mower ended in her being trapped beneath it with the blades spinning. Payton freed her granddaughter by simply throwing the mower away.⁴

Jeff Smith was released from beneath a tractor when his two daughters aged 14 and 16 lifted it up enough for him to escape (although one of his arms remained pinned but was later freed by a neighbour using his own tractor). While Smith's tractor was heavy, it was not as heavy as his daughters' wish to save their dad. Their focus and desire to achieve the aim were so high that they entertained no thoughts of doubt.⁵

So let's break down the desire, belief and expectancy traits to see if The Silva Method can help explain hysterical strength.

● **Deep desire for your goal**

Do the people carrying out these amazing feats wish to help a loved one to survive a life-threatening situation? You bet they have the desire.

A Zen Buddhist fable highlights a different perspective on the level of desire required to focus on what you want. A man approaches a Zen Master and asks to be shown the path to enlightenment. The Master replies, "Follow me", then stands up and walks the man to a nearby river and into the water.

Without warning, the Master forces the man's head under the water and holds it there as the man struggles violently for his life until he is nearly dead. At last the Master pulls up the man, who is gasping for air, and says, "When you want to be enlightened as badly as you wanted to take your next breath just now, come back and see me".

Wanting your recovery or pain reduction as much as you want air, or just really wanting it so much that it becomes your focus, accords with what Napoleon Hill stated: "When your desires are strong enough, you will appear to possess superhuman powers to achieve."⁶

Desire leads on to belief and expectation.

● **Wholehearted belief in your goal**

Does a person generally believe that they can lift a heavy item like a car? No. Do they believe that a car can be lifted off the ground? Yes. The more we hear of others being able to perform such a feat, the more easily we can set our belief that in the correct situation we would be able to do it.

An example is the sub-four-minute mile, which was believed to be physically impossible until Roger Bannister ran it in 3:59:4. Once he did, others had the belief and quite a few people broke the four-minute barrier in quick succession.

● **Expectation of achieving your goal**

Do the lifters have the expectation of freeing the trapped person? In their intense situation, surely they'd be thinking of nothing else. All they can see in their mind is the person freed from suffering, and that is a key motivating factor in achieving the outcome. The helpers in any superhuman situation have a change in mindset.

Is there any more evidence to back up this change in the rescuers' physical capabilities?

People with multiple personalities, as mentioned earlier, who in one persona have one illness or eye prescription but in another persona have no illness and perfect vision show that the mind can change the body's physical attributes by nothing more than the chemicals and electrical charges that the body produces. What does the body need to do to allow people to perform these superhuman strengths?

"When adrenaline is released by the adrenal medulla...it allows blood to flow more easily to your muscles. This means that more oxygen is carried to your muscles by the extra blood, which allows your muscles to function at elevated levels.

Skeletal muscles—those attached to the bones by tendons—are activated by electrical impulses from the nervous system. When they're stimulated, muscles contract, meaning they shorten and tighten. This is what happens when you lift an object, run or throw a punch. Adrenaline also facilitates the conversion of the body's fuel source (glycogen) into its fuel (glucose). This carbohydrate gives energy to muscles, and a sudden burst of glucose also allows muscles to strengthen further."⁷

Another suggestion of what might be happening to the body is that the rescuers have subconsciously sent stronger bolts of electricity to their muscles, perhaps from their focused intention or their new superhuman persona, such as

when a person receives a placebo and their body produces the natural equivalent of the fake drug. Here's another way of looking at this:

"You've heard of people being thrown across rooms by shocks, or their hands clamping down on live wires so hard they can't be loosed? It's not the current that causes it, but our muscles' reaction to the current. If nothing else, it demonstrates the potential for muscle use that's not normally available to us."⁸

So is it the combination of desire, belief and expectancy or something else altogether that pushes the body into the state of releasing superhuman strength? Only more research will give us the answers—and may even help us extend our power of mind over body.

Intention and Visualisation

The power of intention for mind-body healing and pain management is extraordinary. It plays a big part, and only with that focus can we work towards achieving our goals. Here are some examples of intention.

- The late Hrach Ogalii helped many people regain mobility after serious spinal accidents. His work was contentious because he would start by telling patients that they would walk again before working on their mind and beliefs. His documentary *Miracle Steps* follows how he helped Gemma Quinn, who had broken her neck, get sensations back in her feet, which doctors had stated was impossible due to the clean nature of the break.⁹
- A 2007 study by the University of Cincinnati looked at the power of visualisation. Out of the 32 patients involved, the 16 in the group who received visualisation alongside their physiotherapy had more movement than the other group of 16 who received only physiotherapy. The people who visualised had set their intention and goals to help them move closer to the desired outcome—something that athletes do prior to any event.¹⁰
- A great example of intention is the "wiggle your big toe" scene from the film *Kill Bill*.¹¹ The drive, determination and belief demonstrated by the character showed that nothing was going to stop her from wiggling her toe and walking again. I know it's a film, but intent and belief are real and we can choose to believe in and respond to any situation that we wish.

If we choose to survive the diagnosis, our chances of recovery are much higher than if we choose to be a victim. This is supported by a King's College London study that explored the views and beliefs of breast cancer patients three months after their mastectomy. Patients who had a fighting spirit or denial had a much higher rate of survival after five and 10 years than those who felt hopeless and helpless.¹²

Occasionally, doctors can get in the way of our setting our goals and intentions when they say things like "You will never walk again" or "You only have three months to live". Build your own intentions and goals, and don't let others tell you what you can and cannot do.

Personality and Behaviour

The Institute of Noetic Sciences has collated many studies that looked into people who have recovered from cancer or had a case of spontaneous remission.¹³ The researchers reported eight characteristics associated with remission and survival:

- Changing from dependency to autonomy combined with activities, attitudes and behaviours promoting increased autonomy, awareness of themselves, others and their environment, love, joy, playfulness, satisfaction, laughter and humour.
- Facing the crisis, despair, sadness and pain, and discovering they have the power to find a new way of life that is fulfilling and meaningful.
- Taking control of their lives (personal, professional, emotional, spiritual, medical) and living each day fully, combined with a willingness to evaluate their beliefs and attitudes and change old beliefs and attitudes that are no longer appropriate or adequate.
- Becoming comfortable with and expressing and accepting their positive and negative emotions/feelings, their needs, wants and desires (physical, emotional, spiritual), and being able to say no when it's necessary for their wellbeing.
- Having at least one strong loving relationship, a strong connection to another person, an activity, an organisation(s), changing the quality of interpersonal relationships with spouses, friends, family, neighbours, doctors, nurses, etc., in a positive way, and having motivation to help others.
- Working in partnership with their physicians and participating in decisions related to their health and wellbeing.
- Finding meaning in the experience of cancer, finding reasons to live, accepting the diagnosis but not the

prognosis, seeing the disease as a challenge, and having belief in a positive outcome and a renewed desire, will and commitment to life.

- Choosing activities and practices that promote increased awareness and reduce stress (e.g., imagery, stress reduction, yoga), and showing renewed spiritual (soul) awareness that often results in a spiritual practice (e.g., prayer, meditation, religious affiliation, connection to nature).

The eight characteristics are all within our control by changing the way we think, behave and act. This all starts in the mind, and with the correct power of intention we can increase our chances of staying healthy and recovering from any illness.

Noesitherapy: Stopping the Stress Response

Angel Escudero, MD, has performed many operations with no anaesthetic other than his mind technique, noesitherapy. It may sound a little "out there", but it is effective. The first part of his instruction is to fill your mouth with as much saliva as you can. Dr Escudero states: "Fluid, liquid saliva is produced by the salivary glands under the stimulation of the vagus, a part of the parasympathetic nervous system."¹⁴

According to the person who trained me in this technique, the reason why this works is that saliva removes a pillar from the stress process, stopping the next stress response being activated. The second part of noesitherapy is to say to yourself, while keeping the saliva in your mouth, "My right arm [or any other body part] is completely psychologically anaesthetised". Say this with conviction and purpose over and over again.

It may sound too simple to be true, directly suggesting to yourself that you are out of pain, but the many examples in the BBC documentary series *Your Life in Their Hands* show its effectiveness.

When training in this technique, I discovered how quickly everyone on the course could attain a level of pain relief within a few minutes. Has Dr Escudero found the secret formula of saliva, or is it just the power of direct suggestion? Either way, lots of people have had operations with nothing more for pain control than noesitherapy. What other things could we directly suggest our body to do?

Placebo Pain Relief

Henry Beecher, MD, made two interesting discoveries about our mind and pain during his time in the army. During World War II, he ran out of morphine while treating injured US soldiers. He continued injecting the injured with just saline. Amazingly, 40 per cent of the soldiers reported pain relief from the placebo.¹⁵ (A University of California study was the first to prove that when a painkilling placebo was taken, the brain produced its own natural analgesics which are like the body's own version of morphine.¹⁶)

Then Dr Beecher found that, compared to civilians, soldiers had a higher pain threshold and needed less morphine for the same type of injury. He concluded that this was due to how their circumstances changed because of the injury: the soldier was out of harm's way, whereas in civilian life the person might stress over getting to work, providing for their family and paying medical expenses.¹⁷

This suggests that if we can control our emotional response to our pain, we are able to focus on controlling the discomfort as a purely physical sensation.

Suffering, Pain and Resistance

Author Haruki Murakami recounted: "Pain is inevitable. Suffering is optional."¹⁸ But how can we reduce or even remove the suffering? Shinzen Young provides an answer in his "pain equation".¹⁹ Simply put, it states that suffering (S) is equal to pain (P) multiplied by resistance (R), that is, $S = P \times R$. To suffer, we need pain and resistance. So let's say we don't resist the pain and just accept the discomfort, meaning the resistance is at zero. What would be our amount of suffering? According to the pain equation, even if the pain is 100, the suffering would be zero, leaving us with just the sensation of discomfort.

Many mind-body and medical techniques can help us deal with just the pain and discomfort: neurolinguistic programming submodalities, metaphors, hypnosis, breathing exercises, decatastrophising, intention, virtual reality and meditation, to mention a few.

This pain equation clearly demonstrates how we can gain control over our pain and suffering. Most of the suffering of our pain comes from the story, expectations and worries we have about how it is going to affect us in the future or what it was like the last time we had it. If we just accept the pain as part of where we are at this moment, we can build a better future for ourselves.

Resisting something that we don't want seems to make sense. However, the problem with this is that we tense up and don't allow for things to flow. I was once asked to hold a £1 coin tightly in each of my clenched hands and not let go of them or open my hands. The person then offered me a £10 note, but because I was holding the coins so

tightly I was not open for anything else to come my way. I had stopped the flow.

When we accept the discomfort, this opens us up to possibilities and creates a foundation on which to build the rest of our life—just by not resisting but accepting.

Flowing with everything exactly as it is in the moment allows the discomfort to be felt and to leave the body. The saying that "a feeling only has one purpose and that is to be felt" rings true here. If we resist and don't allow the feeling to be expressed, it will sit inside us and manifest as illness or something else until it has been felt through to the end. Resisting pain, as the equation suggests, would cause suffering. However, we now know that accepting and feeling a feeling through to the end is a great way that we can gain more control over our discomfort and our life.

The Mind Rules

We've learnt that multiple personalities create different physical conditions, that raising your awareness of your life can change your body as it did for the maids, that noesitherapy can directly turn off your pain, and that certain characteristics are most likely to ensure recovery. We've also learnt that you can harness the power of the placebo and control your emotional reaction to your pain and suffering. So we now know that we truly can affect our recovery and levels of discomfort with the use of our mind. We can do this with a variety of techniques ranging from meditation, hypnosis and visualisation to changing our perceptions and beliefs.

What has been shared in this article is just touching the surface. There is so much more we can do by changing our mindset to improve our body. I hope this article has whetted your appetite to learn more about our potential in this area.

About the Author:

For over 20 years, Mark Baker has had a passion for the subconscious mind and its power to affect the body. His interest grew when he realised that the results of the mind can clearly be demonstrated on the body through recovery or reduction in discomfort, and so can be measured and recorded. This finding eventually led him to set up his blog:

<http://www.possiblemind.co.uk>.

He went on to train as a psychotherapist and a hypnotherapist, specialising in pain management and recovery. Mark Baker is the author of *Your Body, Only Better* (2015), a collection of cases and techniques that help develop belief in the power of mind, available in Kindle or paperback from Amazon or:

<http://books.possiblemind.co.uk/>.

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EARTH CATAclysms AND THE HOPI KACHINAS, SAVIOURS FROM SPACE

by **Shawn Hamilton**

© July 2016

In my first article "Kasskara, Sunken Land of the Hopi Ancestors" (NEXUS 23/02), Hopi elder Oswald "White Bear" Fredericks (1905-1996) described the Hopis' epic migration story as it unfolded through aeons and on several continents, a couple of them now on the ocean floor.

Their mythology, which I explained more fully in the first article, essentially envisions a series of "worlds" through which the human being, personally and collectively, must pass—these worlds corresponding generally to vast periods of time and changing configurations of global geology.

White Bear described a succession of cycles through which human societies develop then self-destruct because they have fallen out of harmony with the intelligent universal force from which all life springs.

According to Hopi mythology, the First World, Tokpela, was destroyed by fire. The Second World, Tokpa, was destroyed by ice. Both conditions may have come about through disturbances in the Earth's orbit and polar shifts.

In the previous article I mentioned that Plato, recounting in Critias his uncle's Egyptian sojourn, said that a temple priest at Sais had told Solon that "a great conflagration of things upon the earth, which recurs after long intervals...", caused the sinking of Atlantis, a notion consonant with the Hopi world view. Kasskara (Lemuria) was coeval with Talawaitichqua (Atlantis) and was destroyed by water, White Bear said, in the following manner:

"The Kickmongwuity, or Queen of Atlantis, had been threatening Kasskara with destruction from weapons that could be fired from space. Our people had knowledge comparable with those [people] of Atlantis, but we used it only for good and useful ends. As I already mentioned, we studied the secrets of nature, the power of the Creator in the living things," White Bear said, explaining that his ancestors did not seek revenge and avoided killing even to defend themselves. The Hopi culturally embody Jesus' admonition not to resist evil: "Turn the other cheek."

The Shield of Protection

"My people did not defend themselves when [Kasskara was] attacked. And it was right! If that seems strange to you, look at what the Hopi do today. The government of the United States gave us a reservation. Can you imagine? And then they kept coming to cut pieces out of it. They reduced our country more and more. Each time the government does that we say, 'It is not right', as we were instructed [to do] by the Creator," White Bear said, noting that even if their ancestors had not defended themselves actively, they still had their "shield of protection". He said he could not scientifically explain what this shield was and how it worked, but he described it this way:

"If there is lightning, it reaches our shield, and there it explodes. It does not cross the shield. I remember well how my grandmother showed me the way in which the shield acts. One day when I was still a child, she took a basin and turned it over, saying: 'Now you are under the basin. If something falls on it, it will not hurt you.' Perhaps I should tell you that she wanted me to repeat all the stories that she told me," White Bear said. "When I made a mistake she stopped me, and I had to start all over again. It's why I know by heart all of what my grandmother told me."

We might, in our modern sophistication, feel tempted to disregard or trivialise White Bear's grandmother as a credible source of information, but consider that the matrilineal Hopi respect the wisdom and knowledge passed down by their elders.

His grandmother would not intentionally lie to him, and her insistence that he repeat minor details he hadn't easily recalled suggests that she took seriously the transmission of this knowledge to her grandson. This transmission is the basis of all oral traditions. The Hopi in their cycles of ceremonies re-enact these stories because they consider them too important to be forgotten.

"All the bombs, or whatever they were, exploded far above our heads, and the shield protected all people who were to be saved and had been gathered in a certain area. Only we were saved. Cities were attacked and many people perished. And then— as my grandmother said—somebody pressed on the 'bad' button and the two continents sank," White Bear explained. "However, the destruction was not universal; the entire Earth was not destroyed, and not all men were killed. But Atlantis disappeared very quickly into the ocean and our Third World, Kasskara, disappeared very slowly."

The Laws of the Creator

One of the interesting features of the Hopi religious mindset is its similarity to that of certain Eastern religions. The Hopi embrace the idea of reincarnation. They acknowledge "Kundalini energy" and the vortices of psychic vitality called "chakras", and they also recognise the universal law of karma, the spiritual equivalent of Newton's third law of motion, "For every action, there is an equal and opposite reaction". The law of karma is expressed eloquently in the biblical admonition, "As you sow, so shall you reap". White Bear explained the Hopi view of karma:

"Let us suppose that I want to kill somebody and that I have an accomplice. We agree to do it. Even if it is me that kills, the accomplice does it in thought. But he is not as guilty as me," White Bear said. "It is the reason for the fast destruction of Atlantis: they attacked. We, or some of our people, were only collaborators at the time Atlantis attacked Kasskara. This is why the fault on our side was minor and our group had a new chance. If we had been as guilty as the people from Atlantis, we also would have been quickly destroyed," he added.

"The power external to the human capacity did not allow that the people of peace be destroyed completely. These people were reincarnations of men who had lived in the Second World, Tokpa, and who had followed the laws of the Creator. It was His will to give to those who were to be saved the means of succeeding.

"We were saved and we came here because since the First World, Tokpela, we have always obeyed the divine laws! We will see now what occurred then and what role the Kachinas played in bringing us to this continent in the Fourth World," White Bear said.

Kachinas: Emissaries from Space

Since their emergence in the First World, the Hopi and their ancestors have been in a close relationship with Kachinas, whom White Bear defined as "initiated, highly ranked, esteemed beings".

They were originally called Kyakyapichina, the plural form of Kyapchina, the term also incorporating the word chinakane, which means "growth", as in the growth of a plant, although in this context the word also indicates the spiritual growth that the Kachinas inspire. The language evolved over time, and now these entities are simply called Kachinas.



Pahlikmana, Hopi kachina doll, c. late 19th century, held in the Brooklyn Museum. (Source: "Kachina", Wikipedia)

Kachinas can manifest visibly or they can remain invisible, but White Bear made it clear that these beings come to Earth from locations vastly distant from Earth.

"The Kachinas come from space. They do not come from our solar system but from very distant planets. It would require several generations for our astronauts to get there," White Bear said.

"The Hopi name for these planets is Toonatakha, which means close to each other', in a spiritual sense rather than a material one, because all their inhabitants share the same responsibilities and work closely together. For this reason the Hopi translate Toonatakha as Confederation of Planets; and because we know there are twelve such worlds, we also refer to the Confederation of Twelve Planets," he explained, adding: "Kachinas can move very quickly. While I pronounce this sentence, they can traverse vast distances. Their vessels fly with magnetic force, even when they circle the Earth."

In 1978, White Bear accompanied my anthropology teacher, Henry Denny, and me to Inscription Canyon near Prescott, Arizona, an area noted for its ancient petroglyphs.



Etched equilateral cross petroglyph seen at Inscription Canyon near Prescott, Arizona. (Source: <http://theswillbucket.com/?p=5448>)

He pointed out an equilateral cross on a rock slab, its deeply etched outline suggesting an amniotic enclosure. The glyph pre-dates the birth of Christ, he told us, saying that it anticipated this future divine incarnation. White Bear also showed us a glyph of the aforementioned Confederation of Planets, indicating those inhabited worlds that communicate with each other.

In ancient times it was known among certain people that intelligent beings had come from space and helped cultivate mankind out of its primitive state, but this knowledge was nearly lost when the Earth suffered global and semi-global cataclysms. Some of this knowledge survived in the mythologies of aboriginal people, and even in the West some of this information remained concealed by various powerful institutions, often with contradictory interests, such as Freemasonry and the Roman Catholic Church.

White Bear explained that Kachinas have varying ranks depending upon their capacities. While they're all called Kachinas, some are also called Wuyas, which means "divinity" and describes an exceptionally wise person.

"Comparing Kachinas and Wuyas with Christian entities, we might say Angels for Kachinas and Archangels for Wuyas. They are all Angels, but the highest in rank you would call Archangels. The divinities are positioned above the Kachinas, and above all there is the Creator," White Bear said. "Only Kachinas are in contact with the human beings, not the divinities who only give instructions to the Kachinas."

The Hopi refer only to Kachinas when familiarising children with the initiated beings. "It would be too difficult to explain the difference to them, and this is where the Kachina puppets serve their role: they accustom children to these beings' physical appearance so they do not fear seeing the dancers," White Bear explained, adding that even tourists who buy these puppets call them Kachinas but it doesn't really matter if they are unaware of the deeper meanings.



The San Francisco Peaks, a volcanic mountain range in north-central Arizona, sacred to the Hopi. (Source: Wikipedia, <http://tinyurl.com/jvfp39d>)

"We do the same thing with the San Francisco mountains [a sacred range southwest of Hopiland]. When children see those high peaks, they understand when we tell them that this is where the Kachinas go when they leave us," White Bear said, saying that it's easier for children to understand a high mountain than a distant planet.

"Think about what you tell your children about Santa Claus and the child Jesus. But when the children are accepted among the adults, the difference is explained. The Kachinas come from a very distant planet, and when they leave us they return there. The men who carry out the dances represent these learned beings who came to us a long time ago," he said.

White Bear described three kinds of Kachinas.

The first involves survival and the continuity of life. In the Hopi dances, these Kachinas appear in mid-winter when in nature all life sleeps.

"They offer the certainty to us that life will return and continue; and as reincarnation belongs to the continuity of life, it means that we will take birth again and have the possibility to improve," White Bear said.

The second group consists of the teachers. "We learn from them who we are and where we are, what transformations we can undergo and what we must do," he noted.

The third group represents the guardians of the law. "They are the ones who warn us. They explain to us patiently what not to do," White Bear said, "but in time they stop informing us and start punishing us for any evil we do."

White Bear reported that children have been born following a "mystical relation" between Hopi women and Kachinas. "There was a physical proximity between our people and Kachinas. We could touch them. But even if that seems strange, they never had sexual relations. The children were conceived in a mystical way," he said, apparently referring to the phenomenon called "virgin birth" in Christian doctrine.

"Such children, when grown, possessed great knowledge and wisdom and sometimes even supernatural capacities, which they had received from their spiritual father," White Bear explained. "They were splendid, powerful men who were always ready to help but never to destroy."

Flying Shields and Magnetic Fields

White Bear made it clear that Kachinas have physical bodies. "That's why they need vessels to travel in our skies and return to their planets," he said, adding that the spaceships have various sizes and names.

"One name is Patoowa, the object which can fly above water'. Pahu means water' in our language, and Toowata is an object with a curved surface'. Because of this form, we also call it a flying shield'. I will tell you what it resembles: if you cut a calabash [gourd] in two, a form is obtained with the aspect of a saucer. You may assemble two of these and approximate the shape of the vessel which they used formerly to go to these planets. A pilot sitting inside can move the craft in all the directions and does not lose balance regardless of speed. Because of this form, we call it Inioma," he said.

I haven't been able to locate a definition for Inioma beyond White Bear's description that suggests the occupants were unaffected by the ship's velocity. It's also clear that White Bear believed that the spaceships flew by somehow utilising magnetism or magnetic fields.

The Hopi know that some of their ancestors flew in these spaceships, which had also been used in other countries.

In India, for example, they were called Vimanas. "People from Atlantis came to us in these vessels. Near Oraibi there is a petroglyph representing a woman in a flying shield. The arrow signifies high speed," he said. "You can see she carries the hair of a married woman."

Describing these spaceships, White Bear said the two halves are held together by a "support" which the pilots must actuate. When they turn a lever to the right, the ship goes up. When they turn it to the left, it goes down.

"The vessels do not have engines like aeroplanes and do not use fuel. They fly in a magnetic field. Pilots must only know the adequate height. If they want to move towards the east, they choose a certain height. If they want to go north, they choose another height. It is enough to go up to the height corresponding to the selected direction and the vessel flies in the desired direction. This way, they can reach any place inside our atmosphere and can also leave the Earth," White Bear said. "It is very simple!"

Message of the Hopi

It's clear that the Hopi embrace a world view which is more expansive, timeless and wondrous than our own. Members of our "modern culture" are slowly abandoning the anthropocentric view that humans are the pinnacle of Creation. Life must exist elsewhere and permeate it.

It took our clever culture of reason and science hundreds of years to apprehend the knowledge that the Hopis have embodied all along—awareness that malicious human activity, including large-scale warfare, environmental destruction and the pollution caused by those abominations, disturbs a delicate balance that directly harms the physical environment and all life on the planet. The Hopi know what's coming because it's happened before.

About the Author:

Shawn Hamilton is a teacher and reporter in California. He began his teaching career in Taiwan in 1989 when large rallies were supporting the protesters at Tiananmen Square in Beijing, China. Hamilton moved to Sacramento where he taught classes part-time and covered the capitol as a reporter for Pacifica Radio's KPFA in Berkeley, near San Francisco. He received a Project Censored award in 2011 and writes poetry for fun. His article "Kasskara, Sunken Land of the Hopi Ancestors" was published in NEXUS vol. 23, no. 2, Febr-March 2016.

As a teenager, Hamilton was introduced to Oswald "White Bear" Fredericks by his high school anthropology teacher, and he became intrigued by traditional Native American culture. The experience led to his travelling to Nevada to spend a few days at the camp of Shoshone healer John "Rolling Thunder" Pope. While attending Humboldt State University in California's Redwoods a few years later, Hamilton took classes in Native American Studies and began participating in ritual sweat lodge ceremonies on the Eel River.

Shawn Hamilton lives in Sacramento with his spouse and son. He can be contacted at kasskaran@protonmail.ch

For more information and articles, visit his website <http://theswillbucket.com/>

BOOKS

Reviewed by Ruth Parnell

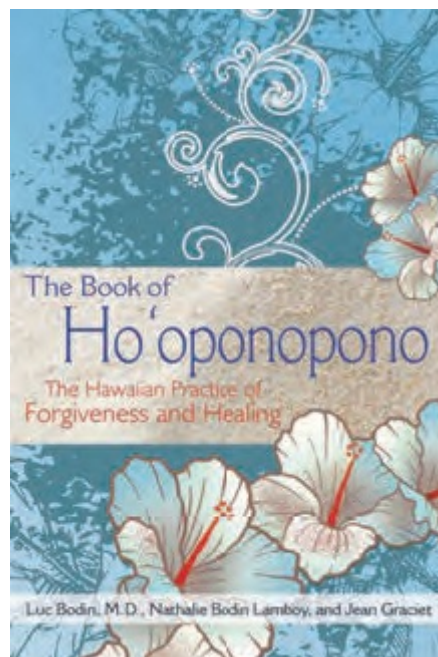
LIFE AFTER DEATH IS CERTAIN

by John O. Milne
Rev. Glennys Mackay,
Brisbane, Australia, 2016,
2nd edition (261pp pb)
ISBN 978-0-646-95109-6
Available: www.nexusmagazine.com

Engineer John Milne became interested in psychic research in 1957 when a spiritualist medium showed him proof of survival of consciousness beyond death. He developed his own mediumship as a healing practice through the Valley Spiritualist Church, Brisbane, of which he was president from 1963 to 1991. He saw the need for a psychic manual, and in 1968 his *Life After Death is Certain* was published. He died in 1992, but in recent times he made contact with the spiritual circle to ask for his book to be republished.

Milne discusses the scientific, philosophic and spiritual aspects of survival after death and holds that spiritualism is the science of life, free of dogma and creed and focused on replacing the mystery and fear of dying with a reason and purpose for living. He explains the operations and purposes of spirit guides, helpers and mediumship circles, the nature of psychic gifts, and the various types of mental and physical mediumship. He describes the workings of spirit and distance healing and the seven principles of spiritualism.

Milne also outlines the spirit's separation from the physical body at death and the conditions that govern existence in the spirit world. He touches on rescuing Earth-bound spirits, reincarnation, the spiritual aspect of hypnotism and the truth about Christianity. His approach is responsible, alerting us to the many pitfalls of psychic work yet also giving inspiration to true spiritual seekers.



THE BOOK OF HO'OPONOPONO

by Luc Bodin, MD,
Nathalie Bodin Lamboy
and Jean Graciet
Destiny Books, Rochester, VT, USA, 2016
(first published in 2012 by Editions Jouvence, France)
ISBN 978-1-62055-510-1 (150pp pb)
Available: www.DestinyBooks.com

Essential to Huna, the traditional Hawaiian healing and spiritual shamanism, is Ho'oponopono, a practice used in a community to establish harmony and restore order among individuals and society.

The aim of Ho'oponopono is to free ourselves of memories, values and beliefs that prevent our attunement with our inner divine self. It's an alchemical approach that transmutes fears into pure love and peace. It's as simple as recognising our own responsibility for creating events in our life and then saying the mantra, "I'm sorry; forgive me; thank you; I love you". By cleansing the mind of negative memories, unconscious fears and misguided programming, we can live fully in the here and now.

The co-authors of this book are all practitioners of this technique and attest to its power as a transformative life tool, whether in dealing with traumatic events, family issues or even minor daily annoyances. Dr Bodin in his own chapter draws on quantum physics and epigenetics to explain how Ho'oponopono changes DNA expression. This is a simple but effective strategy for soul healing.

MEET THE HYBRIDS

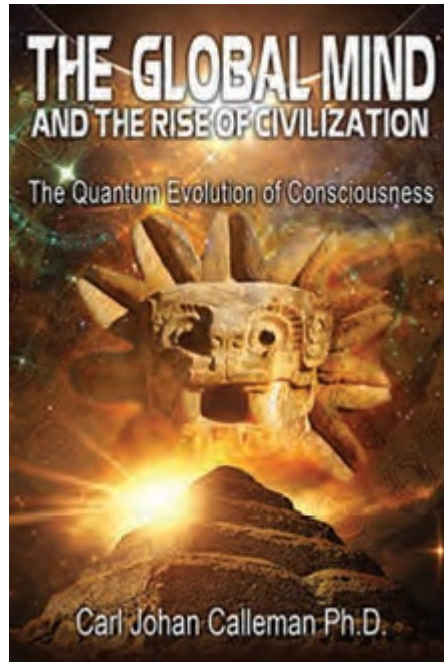
by Miguel Mendonga and Barbara Lamb
CreateSpace, USA, 2015
ISBN 978-1-5187410-1-2 (269pp pb)
Avail: meetthehybrids.wordpress.com

Increasingly we're hearing about people who claim to be hybrids— part human and part alien genetically or in a soul sense. For Meet the Hybrids, Anglo-Azorean writer and UFO researcher Miguel Mendonpa and California-based therapist Barbara Lamb combined forces to investigate the experiences of eight self-declared hybrids—six women and two men—through interviews and email communications.

The participants answered questions about how they became aware of their hybrid nature (most felt "different" as children), which ETs they have a connection with (some have links with several types, and at least 15 have been identified), what special abilities they have (healing and psychic gifts are predominant), and what they see as their mission (helping human evolution).

They also commented on what protocols govern interaction (human free will is to be respected), what they sense may be coming with Earth changes (yes, they're coming in an energetic, vibrational shift), and what they think of the "takeover" thesis (a matter of perspective, or the jury's still out). Some of these individuals have had disturbing experiences but are firmly grounded in the power of love.

The authors add commentary on their personal journeys during this extensive research project, and they offer a big-picture viewpoint in their consciousness-expanding book.



THE GLOBAL MIND AND THE RISE OF CIVILIZATION

by Carl Johan Calleman, PhD
Bear & Company, VT, USA, 2016
ISBN 978-1-59143-241-8 (299pppb)
Available: BearandCompanyBooks.com

Why did the use of straight and perpendicular lines come about with the rise of civilisation, of city building, of pyramid building? According to Dr Carl Johan Calleman (17/02, 11/04), the start of the Mayan Long Count calendar and the Sixth Wave of humanity in 3115 BCE coincided with this new way of conceptualising spatial relationships. However, with the beginning of the pre-Long Count in 8240 BCE came the first rectangular rooms at Gobekli Tepe in Turkey, but these don't denote civilisation by definition.

Something changed, and Calleman asserts that this new order implies a geometric alteration in the human mind—one that also led to the rise of written language and mathematics.

It also relates to the quantum evolution of the global mind and its holographic resonance with the human mind. This global mind prompted the creation of an eight-partitioning, shown in the Long Count calendar and denoting a global grid system linked with divine order. This allowed for the development of specialisations needed for cities and civilisations to emerge. Calleman examines how the two hemispheres of the brain have parallels with the East and West civilisations and suggests that the global mind is connected to the Earth's inner core.

The Long Count didn't end in 2012 and the Sixth Wave continues, says Calleman in his fascinating book.

HAUNTED SKIES Volume 10, 1987-1988

by John Hanson & Dawn Holloway
with Brenda Butler
Haunted Skies Publishing, UK, 2014
ISBN 978-0-957-4944-3-5 (623pp pb)
Available: www.Amazon.co.uk

The authors of Haunted Skies continue their daunting task of preserving the social history of UFO research in the 10th volume of their series, covering the 1987-1988 period (see review of volume 8, 1980, in NEXUS 21/06). This edition has a foreword by former UK Ministry of Defence UFO desk secretary Nick Pope.

While Hanson and Holloway's focus, with help from Brenda Butler, has been primarily on UFO activity in the UK,

especially England, for this volume they expand the context to include accounts from the USA, Australia and New Zealand from 1940 to 1962. Indeed, the late Captain Bruce Cathie is acknowledged here for his research on the World Grid and its association with UFO activity.

This hefty, large-format book would have been easier to navigate if it had a contents section. Nevertheless, the authors provide fascinating witness testimony, documents, drawings, photographs and newspaper reports. There are not just accounts of UFOs in all their shapes, sizes and colours but of ghostly apparitions, giant hairy men, anomalous singing children, missing time experiences, crop circles and more. Some of these reports are well known; others have barely seen the light of day before. The authors include an update on the strange sightings in Rendlesham Forest since the original 1980 events.

This is a weighty, welcome addition to UFO and paranormal literature.



WEAPONS OF THE GODS

by Nick Redfern

New Page Books, NJ, USA, 2016

ISBN 978-1-63265-038-2 (242pp tpb)

Available: NewPageBooks.com

Did the ancients have nuclear weapons that laid waste to cities and vitrified desert sands? Did they source them from ETs, perhaps working in league with them? Many proponents of the ancient aliens theory believe they did. Nick Redfern (22/06) examines the evidence for and against with an open mind.

If nuclear weapons were used in ancient times, Redfern suggests that their devastating effects were localised and did not necessarily cause planet-wide catastrophes. He turns to the famous Indian epic, the Mahabharata, with its tales of flying craft and ancient wars, but he also looks at critiques which question that craft as described in the Vyaanika-Shastra could have been able to fly, let alone engage in warfare.

Redfern considers what may have happened to the biblical cities of Sodom and Gomorrah, the ancient Indus Valley cities of Harappa and Mohenjo Daro, the more recent hill forts of Scotland with their vitrified walls, and the Israeli, Iraqi and Libyan deserts where sand has been turned to green glass. Such green glass was first produced in modern times in the 1945 atomic test blast near Alamogordo, New Mexico.

Redfern refers to myths that describe events more in keeping with asteroid and comet impacts or even volcanic eruptions. While he doesn't refer to it, the Electric Universe theory may add to the debate.

LEGEND TRIPPING

by Robert C. Robinson

Adventures Unlimited Press, USA, 2016

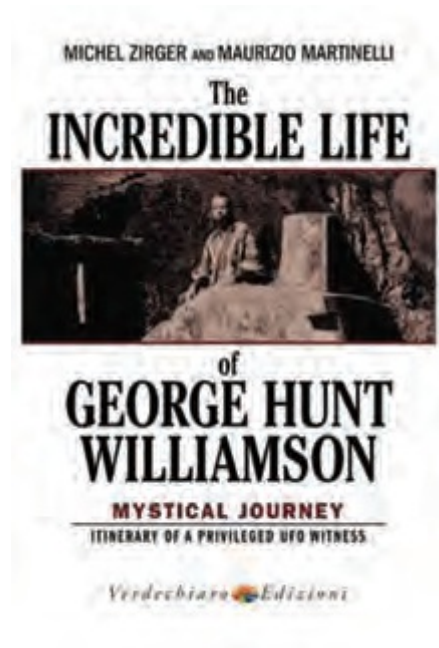
ISBN 978-1-939149-64-0 (312pp tpb)

Avail: AdventuresUnlimitedPress.com

A recently coined name for investigating legends and mysteries is "legend tripping", and author Robert Robinson is a legend tripper in the true sense. A retired US Army airborne military policeman, Robinson has the necessary survival and investigative skills to indulge in his passion, as he's done for years with his wife and children.

In his book, Robinson devotes chapters to lizard people, flying reptiles, aquatic monsters and more. He also covers haunted places and ghosts, UFO-ET sightings and landing sites, hidden or lost treasures and mysterious phenomena including ghost lights and gravity-defying hills.

Robinson includes advice on what you should and shouldn't do when going legend tripping, whether you're on expeditions or day trips. He also lists all the essential equipment and tools to take with you, whether you're searching for the Florida Swamp Ape, visiting a haunted house or cemetery, or searching for buried treasure. He relates stories about his own encounters and gives tips on how to organise exploration teams so that no one becomes lost. An exciting offering that's big on practicalities.



THE INCREDIBLE LIFE OF GEORGE HUNT WILLIAMSON

by Michel Zirger and Maurizio Martinelli

Verdechiario Edizioni, Baiso, Italy, 2016

(first published in Italian in 2013)

ISBN 978-88-6623-262-9 (377pp tpb)

Available: www.Amazon.com

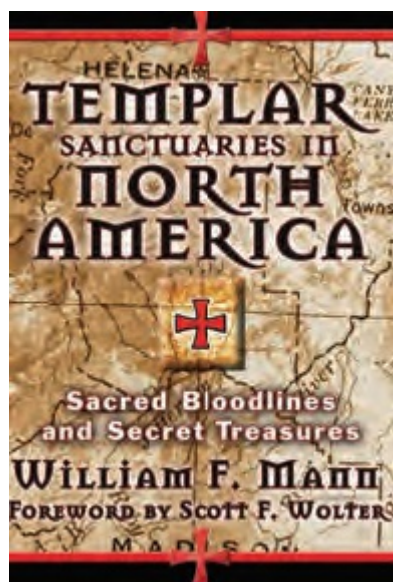
One of the pioneers of ufology in the 1950s was George Hunt Williamson, author, lecturer, amateur anthropologist and archaeologist as well as mystic and channeller of extraterrestrial beings and ascended masters, including the Brotherhood of the Seven Rays.

He was nearby when George Adamski made contact with the Venusian "Orthon" at Desert Center, California, in 1952, and he made plaster casts of the ET's shoeprints that bore mystical and stellar symbols (see Warren Aston's article in NEXUS 22/04).

Much has been misconstrued about Williamson, and detail is short on many periods of his life. French-born, Tokyo-based researcher Michel Zirger has teamed up with Italian author Dr Maurizio Martinelli for this comprehensive biography of Williamson (Aston edited Zirger's English translation).

Zirger holds an extensive archive of material including Williamson's notebooks, diaries, manuscripts, photographs and letters, many reproduced here and shedding light on Williamson and his famous associates. Martinelli adds to the mix from his own research and his father's correspondence with Colonel Costantino Cattoi, who was in contact with Williamson in the 1950s.

The authors review revelations made by Williamson in his books including *Other Tongues - Other Flesh* (1953), *The Saucers Speak!* (1954, with Alfred Bailey) and *Secret of the Andes* (1961, written under the pseudonym Brother Philip). Williamson's story is extraordinary, and the authors have completed more of the jigsaw puzzle about this enigmatic truth-seeker.



TEMPLAR SANCTUARIES IN NORTH AMERICA

by William F. Mann

Destiny Books, VT, USA, 2016

ISBN 978-1-62055-527-9 (395pp tpb)

Available: www.DestinyBooks.com

The author of *The Knights Templar in the New World* (see 11/04), William Mann has followed up with an intriguing account of how the Knights travelled to North America in several waves of migration, setting up secret settlements in the wilderness and finding refuge with the sacred medicine lodges of the Algonquin Nations.

Their purpose in the late 11th/early 12th century was to protect the Holy Bloodline of Jesus and Mary Magdalene as well as the Templar treasure taken from the ruined Temple of Solomon before the First Crusade. (There is also evidence for migrations of pre-Christian Celts, Basques, Phoenicians, Egyptians, Carthaginians and Jews to the New World over a thousand years earlier.)

A member of the Anishinabe/ Algonquin Nation, Mann is also a descendant of Prince Henry Sinclair, the Templar who sailed to the New World in 1398 and travelled from Nova Scotia to reactivate the sacred Rose Lines of North America—a grid system rediscovered by the original Templars. These Knights had interbred with the Algonquins, whose sacred rituals have many similarities with those of Freemasonry. Mann himself is a Masonic Knight Templar,

Mann traces the whereabouts of the Templars' wilderness sanctuaries and identifies the location of the so-called lost Templar treasure in Montana. He says that the treasure was never lost but has been guarded over the centuries by the Blackfoot Confederacy. There are many more surprises in this underground history.

**YOUR HEALTH,
YOUR VITALITY,
YOUR CHOICE**

by Yvonne Tait

Balboa Press, Bloomington, USA, 2016

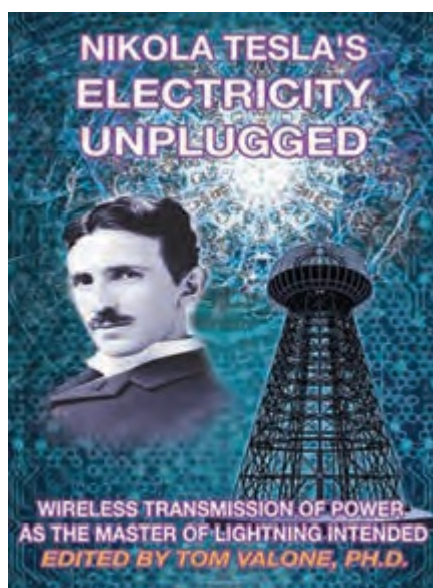
ISBN 978-1-5043-0106-0 (622pp tpb)

Available: www.yvonnetait.com

We can all take responsibility for our own health if we so choose, says retired medical herbalist and iridologist Yvonne Tait who has over 20 years of clinical experience in Australia. Her own health problems with Ross River virus in the 1980s led her to seek answers in natural medicine and then gain qualifications and go on to run her own practice.

Tait's first tip is to promote good intestinal health with slippery elm bark powder and probiotics. Next, to ensure that the body receives clean, appropriate nutrients. Then, to implement diet/supplement changes gradually, to avoid any healing crisis. She compares the pleomorphosis theory of Béchamp with the germ theory of Pasteur, the former winning.

Tait has produced an easy-to-follow guidebook to vital living in the 21st century with all its stressors, whether from pollution, EMFs, denatured food or fluoridated water. She presents many cases of illnesses, even cancers, turned around by dietary changes and the intake of special herbs and supplements. Tait also describes common ailments of and natural treatments for the various body systems. She advises on maladies and therapies relating to the female and male reproductive systems, and also touches on energy healing modalities and her own link with Divine Unconditional Love. She has a glossary of herbs as well as guidance on harvesting them and preparing simple home remedies. This is a reference to have at your fingertips.



**NIKOLA TESLA'S
ELECTRICITY UNPLUGGED**
edited by Tom Valone, PhD

Adventures Unlimited Press, USA, 2016
ISBN 978-1-939149-57-2 (448pp tpb)
Avail: AdventuresUnlimitedPress.com

This anthology compiled by Dr Tom Valone is a sequel to *Harnessing the Wheelwork of Nature* (10/02), published in 2002 ahead of the centenary of Nikola Tesla's Wardenclyffe Tower— an unfinished experiment in transmitting earth-ionosphere power wirelessly with greater efficiency than power lines.

The foreword for Nikola Tesla's *Electricity Unplugged* is by mechanical engineer William Terbo, a great-nephew of Tesla who met the inventor when he was a child and Tesla was over 80 years old.

The first section covers Tesla's life events leading to his development of the wireless power concept, with contributions from Stephen Hall, James Rybak, Dr Mark Seifer and others as well as reprints of Tesla's 1904 Manifesto and his 1919 article "The True Wireless".

The second section focuses on popular Tesla wireless power concepts, with material from Prof. A. S. Marincic who confirmed Tesla's stationary or scalar waves, Dr Nikolaos Simos, Dr James Corum and James Smith, Mike Gamble, Roy Davis and Dr Konstantin Meyl, again on scalar waves.

The third section examines modern developments in the evolving scientific analysis of Tesla's wireless transmission, with coverage of the Corums brothers' discovery of the Zenneck surface wave and their Bell Telephone Laboratory experiment which gives insights into how worldwide power transmission with minimum attenuation can be achieved.

Dr Valone supports these findings and looks to a future when transmission grids will be more secure and stable, and wireless electricity will be commonplace as per Tesla's vision. His compilation is a "must have" for Tesla buffs.

THE MECHANICAL THEORY OF EVERYTHING

by Joseph M. Brown
Basic Research Press, MS, USA, 2015
ISBN 978-0-9712944-9-3 (287pp hc)
Avail: www.basicresearchpress.com

Mechanical engineer Dr Joseph Brown has spent decades of his spare time on his quest to develop a unified theory of science. He's published many books, but *The Mechanical Theory of Everything* is the third in a series that includes *Unified Physics* (1965) and *Principles of Science* (2001). He had a career in aerospace engineering and was a long-time professor of mechanical engineering.

Brown proposes a kinetic particle theory where the basic unit is the tiniest elastic sphere that he calls the bruton. These brutons make up a gas—the ether—that pervades all of space. They comprise all of matter, and are the building blocks of neutrons, protons and electrons, inorganic and organic life, stars and planets.

By repeated collisions, they produce all the forces. He posits that the universe is mechanical, more in keeping with Newtonian physics and certainly not with Einsteinian. Furthermore, from this model he explains how mathematics, language and logic, time, force, displacement, velocity, acceleration and mass are derived, and he presents many equations to support his argument.

Brown suggests that DNA also acts in a mechanical fashion, chemical forces producing torsional elastic strains at each division in the gene, which has implications for age reversal. A thought-provoking theory.



BRITAIN'S SECRET WARS

by T. J. Coles

Clairview Books, W Sussex, UK, 2016

ISBN 978-1-905570-78-2 (214pp tpb)

Available: www.clairviewbooks.com

Britain has had a long history of using "free trade" to exploit nations and resources, particularly because its own resources are limited. It's no wonder, then, that conflict, oppression and war are used to progress British foreign and economic policies.

Political writer, neurology philosopher and director of the Plymouth Institute for Peace Research, T. J. Coles adds historical context to past and recent examples of Britain's involvement in overt and covert wars, from the Middle East to Colombia, Bangladesh to Ukraine, Sri Lanka to Somalia and other theatres.

As Coles documents, there is a Shadow State in which Britain is allied with the USA and other nations like France and Israel in a bid to control access to resources, interfere with countries like Syria, Libya, Iraq, Iran and Yemen and depose their leaders, however "despotic". In the process, Britain and her allies have revived previous jihadist groups and created new, more terrible, terrorist networks like ISIL/ISIS.

Coles sees Britain as culpable in cooperating with the Sri Lankan government in ethnic cleansing of Tamil civilians, promoting Somali and Ethiopian warlords, running clandestine chemical warfare in Colombia, training death squads in Bangladesh, turning a blind eye to Indonesia's human rights violations in Papua, and much more. The use of drones in war zones such as Syria is an action that Britain, with its assumed moral high-ground, claims is legal under international law, states Coles in his hard-hitting book.

HIDDEN FINANCE, ROGUE NETWORKS AND SECRET SORCERY

by Joseph P. Farrell

Adventures Unlimited Press, USA, 2016

ISBN 978-1-939149-63-3 (293pp tpb)

Avail: AdventuresUnlimitedPress.com

In his latest investigative work, historian Dr Joseph Farrell takes on 9/11 and the events surrounding that fateful day. He's always had his suspicions about the intertwined events, and he concludes that 9/11 was not just a two-tiered operation, as regarded by most conspiracy analysts, but a three-tiered supranational operation.

He draws on and develops the findings of researchers such as Webster Tarpley and Thierry Meyssan. This "op within an op within an op", Farrell states, involved an outer layer with patsy terrorists, a deeper layer comprising a

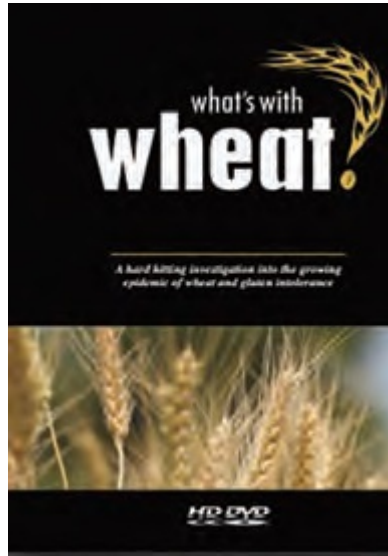
rogue faction within the US military-security-intelligence complex, and an even deeper layer that then British Prime Minister Tony Blair perhaps inadvertently referred to as "a global network".

This third network, Farrell posits, threatened the second layer with "blackmail via a compromised command and control structure", having gained access to all the key US military and intelligence agencies' computer codes, and in effect carried out a coup d'etat.

Farrell adds to discussions on the downing of the Twin Towers by a possible exotic energy weapon, on dodgy trades and missing money, and on breakaway civilisations. He revisits arguments of his previous books on the Nazi International (16/02, 22/06) and postwar Fascists with ties to radical Islamists. There are also UFO and occult themes in Farrell's engaging alternative history.

DVDs

Reviewed by Richard Giles



WHAT'S WITH WHEAT?

produced by Cyndi O'Meara
A Changing Habits Documentary,
Queensland, Australia, 2016 (79mins)
www.whatswithwheat.com

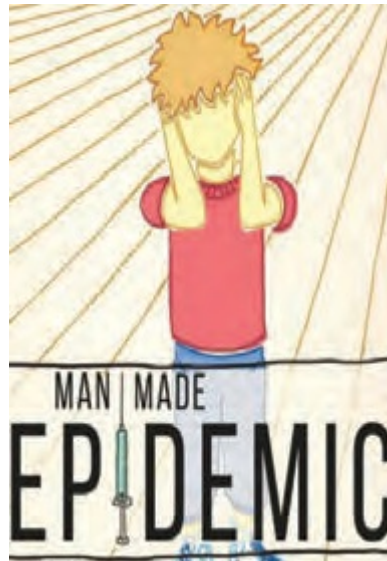
The question asked in this DVD is: why have we become so wheat intolerant? In fact, Cyndi O'Meara, who produced the film, asked that question many years ago when she was completing her BSc degree in nutrition from Deakin University in Victoria and then studying at the University of Colorado.

What's With Wheat? investigates the epidemic of wheat intolerance and asks why, after we've been eating it for thousands of years, wheat has been linked with so many health problems. One hundred years ago, a loaf of bread took two days to make with fermentation; now it takes two hours. Modern wheat crops have at least 10 chemical applications, and artificial vitamins and minerals have been added to flour since the 1960s.

O'Meara asked some experts why wheat is affecting so many people today. Among those consulted are: David Perlmutter, MD, a neurologist and Fellow of the American College of Nutrition; University of Iowa clinical medicine professor Terry Wahls, MD, who teaches internal medicine; neurosurgeon Natasha Campbell-McBride, MD, from Bashkir Medical University, Russia; Leo Galland, MD, a world leader in integrative medicine; organic farmer Joel Salatin; and Sally Fallon Morell, founding president of the Western A. Price Foundation.

Also interviewed is Sayer Ji, who founded GreenMedInfo.com in 2008 to provide a worldwide, open-access, evidence-based resource that supports integrative modalities.

These and other contributors look extensively at the role of wheat in disease as well as its presence in many products including cosmetics, medications, supplements, additives, preservatives and surfactants. This is a revealing, must-view documentary.



MAN MADE EPIDEMIC

directed by Natalie Beer

© 2016

(84mins; available for streaming)

www.man-made-epidemic.com

There is a new surge of interest in the safety of vaccines across the western world. German filmmaker Natalie Beer set off on a journey to speak to doctors, scientists and families to find out the truth about the autism epidemic and whether vaccines play a role in it.

The film explores the common misconception that autism is solely genetic in nature. It examines scientific concerns in recent years about environmental factors such as medications and pesticides that continue to leave our children with physical and neurological damage.

As a mother, Beer wanted to investigate the safest course for her children, and decided to proceed with extreme caution as she discovered that the autism epidemic could not be explained away. Man Made Epidemic was filmed in Europe and has experienced the same censorship and vilification as the Vaxxed documentary, It was pulled from London's East End Film Festival in early June because of intense outside pressure.

This is a timely and important film that strongly contributes to the vital discussion regarding vaccine safety.

MUSIC

Reviewed by Richard Giles



WA DI YO

by Lakou Mizik
Cumbancha Music, 2016 (44mins)
Distributors:
Australia—The Planet Co.,
www.theplanetcompany.com
USA —www.cumbancha.com
www.lakoumizik.com

Lakou Mizik was formed after the 2010 Haitian earthquake. The band set out to gladden their battered country and revive the Haitian musical tradition. Featuring four singers, five percussionists, accordion, guitar and carnival celebration cornets, *Wa Di Yo* is an easy-going debut album that arouses the Haitian spirit. Lakou Mizik mixes older style Haitian favourites and voodoo rhythms with new songs, reflecting African, New Orleans and Caribbean influences. Electrifying!

THE SOURCE

by 2016: Afro Celt Sound System
ECC Records, UK, 2016 (78mins)
Distributors:
Australia—The Planet Co.,
www.theplanetcompany.com
UK—ECC Records, eccrecords.co.uk
www.afroceltsoundsystem.org.uk

Afro Celt Sound System has been around for more than 20 years (NEXUS 11/01). Here the group combines rousing, racy Celtic, Irish and Scottish reels with West African sounds. The album is currently subject to a UK court dispute, as the original band claims that the three former members who released it are not entitled to use the band's name.

The Source is mainly an acoustic album, blending kora, balafon and Guinean chants with pipes, flutes and bhangra drums. It's a great musical melange, and worth a listen sooner than later in case of any renaming.

PRESENCE

by Sacred Earth

Sacred Earth Music, 2016 (64mins)

Distributors:

Aust—Phoenix Distrib.,

www.phoenixdistribution.com.au

www.sacredearthmusic.com

Sacred Earth is a Sunshine Coast, Queensland, duo of sacred singers with a wide audience in Australia and overseas (NEXUS 13/03, 15/03, 22/05). The duo has recorded in concert some of their favourite pieces for loyal fans as a gift of appreciation.

On Presence, Prem sings mantras from the heart that resonate and reconnect you with your deeper self. Jethro's sonic harmonies and stilling Japanese shakuhachi with Indian bansuri, Irish tin whistle and acoustic guitar guide you benignly to an inner peace. Harmonious, heartfelt music.

PA'KI PA'KA

by Robert "Robi" Svard

Asphalt Tango Records, 2016 (45mins)

Distributors:

Australia—The Planet Co.,

www.theplanetcompany.com

Germany—Asphalt Tango Records,

www.asphalt-tango.de

Robert "Robi" Svard is an award-winning, classically trained Swedish guitarist. After studying in Australia, he moved to Seville, Spain, to focus on flamenco. A Facebook posting a few years ago inspired one of flamenco's top singers, Alfredo Tejada Heredia, to want to work with him.

Robi was then invited to record in the legendary FJR Estudios de Grabacion in Granada with some of the best flamenco musicians in the world, including bassist Nani Conde and percussionist Miguel Rodriguez Fernandez ("El Chyenne"). You'll find Pa ki Pa ka an album of beauty and astonishing skill. Exceptional and passionate flamenco.

Cartoons

by Phil Somerville





"Can you tell me how to find the link road to State Highway 6?"



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